

K5000W/S/R

Service Manual

KAWAI

Kawai Musical Instruments
Manufacturing Co., Ltd.

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1. PARTS LIST

CASE PARTS

Code No.	Name		Pieces		
			W	S	R
804969	Volume knob	EMFD - 1028	2	2	-
808380	Incrementer knob	EMFD - 1021	1	1	-
808574	"	KMFD - 0018	-	-	1
811233	Cable bind	PLT - 1M	7	7	7
811553	Key top (S) smoke	KSFD - 0110	19	19	-
811555	" (L) "	KSFD - 0114	45	34	-
811561	Volume cover	KSFD - 0115	2	2	-
811625	End block	KMFD - 0061	1	-	-
811794	"	" "	-	1	-
811626	Side block (L)	KMFD - 0053	1	-	-
811795	"	" "	-	1	-
811627	Side block (R)	KMFD - 0054	1	-	-
811796	"	" "	-	1	-
811628	Side block cover	KMFD - 0055	1	-	-
811797	"	" "	-	1	-
811629	Panel	KMFB - 0060	1	-	-
935395	"	KMFB - 0061	-	1	-
811630	LCD cover ass'y	KMBN - 0001	1	-	-
811896	"	KMBN - 0003	-	-	1
811793	"	KMBN - 0002	-	1	-
811631	Panel sheet - W	KMFD - 0057	1	-	-
811798	" - S	KMFD - 0058	-	1	-
811632	Insulation sheet	KMFD - 0059	1	1	-
811633	Wheel knob	KMFD - 0060	2	2	-
811634	Wheel rubber	KMFZ - 0057	6	6	-
811635	leg	PL - 10 (black)	4	4	-
811724	Keyboard ass'y	TP / 8S (61 keys)	1	1	-
811787	Cloth for volume cover	KSFZ - 0156	2	2	-
910030	Metal for P.C.B.	EPFB - 1008	2	2	-
935045	Metal for base	KMFB - 0076	1	1	-
935865	"	KMFB - 0094	-	-	1
935050	Metal for side block (R)	KMFB - 0083	2	2	-
935051	" (L)	KMFB - 0083	1	1	-
935055	Metal for rear of keyboard	KMFB - 0064	1	1	-
811733	Screw - Mount tie for cable	T18MR	5	5	-
935060	Metal for front of keyboard	KMFB - 0065	1	1	-
935065	Metal for transformer	KMFB - 0066	1	1	-
935070	Metal for FDD	KMFB - 0067	1	1	-
935075	Metal for main P.C.B.	KMFB - 0069	1	1	-
935845	"	KMFB - 0090	-	-	1

Code No.	Name		Pieces		
			W	S	R
935080	Metal for encoder	KMFB - 0070	1	1	-
935085	Metal for LCD (R)	KMFB - 0071	1	1	-
935086	Metal for LCD (L)	KMFB - 0071	1	1	-
935095	Metal for power supply P.C.B.	KMFB - 0073	1	1	-
935890	//	KMFB - 0084	-	-	1
935105	Metal for wheel	KMFB - 0068	2	2	-
935110	Wheel spring	KMFB - 0075	1	1	-
935150	Reinforcement for side block	KMFB - 0082	1	1	-
935440	Metal - 2 for volume	KMFB - 0081	-	1	-
935410	Base lid	KMFB - 0077	1	1	1
802548	PE sheet	0.03 × 1450 × 930	1	1	-
811849	Partition sheet	KMFD - 0072	1	1	1
811799	Round knob (φ 12) (for plastic shaft)	KMFD - 0063	-	18	-
811897	// (for Al. shaft)	KMFD - 0071	-	-	2
811899	Key top 2 (with lens)	KMFD - 0069	-	-	1
935400	Metal for end block P.C.B.	KMFD - 0078	-	1	-
810031	Power switch knob	KMFD - 0008	-	-	1
811104	Power switch knob guide	KMFD - 0009	-	-	1
811900	Spacer	RSPS - 6	-	-	7
935880	//	SQ - 6 (for M3)	-	-	4
812006	Key top (2 rectangles)	KMFD - 0068	-	-	4
811898	// (3 //)	KMFD - 0068	-	-	6
812007	// (1 rectangle)	KMFD - 0068	-	-	11
935825	Rib (L)	KMFB - 0099	-	-	1
935830	Rib (C)	KMFB - 0087	-	-	1
935835	Rib (R)	KMFB - 0098	-	-	1
935840	Front chassis	KMFB - 0089	-	-	1
935850	Metal for transformer	KMFB - 0091	-	-	1
935855	Reinforcement for panel	KMFB - 0092	-	-	2
935860	Rear panel	KMFB - 0093	-	-	1
935870	Upper cover	KMFB - 0095	-	-	1
812037	Round knob (φ 12) (for Al. shaft)	KMFD - 0070	-	2	-
811890	Spacer	RSPLS - 6	-	-	12
935875	Front panel	KMFB - 0097	-	-	1
811901	Case leg	FF - 004 (A)	-	-	4

ELECTRIC PARTS

Code No.	Name		Pieces		
			W	S	R
236744	Printed wiring board ass'y	KMI - 062 (1)	1	-	-
236762	"	KMI - 062 (2)	-	1	-
236779	"	KMI - 062 (3)	-	-	1
236745	"	KMI - 064 ~ 070 (1)	1	-	-
236763	"	KMI - 081 ~ 089 (1)	-	1	-
236783	"	KMI - 091 ~ 096 (1)	-	-	1
805995	Volume (modulation)	RK163110 50K	1	1	-
805996	" (pitch bend)	" 50K C · T	1	1	-
811475	LCD	HG24503 NG - EW	1	1	1
811488	FDD	MF355F - 2252MG	1	1	1
811534	Power switch	EST 206B	1	1	-
811643	AC inlet	AC - P01CF01	1	1	1
811648	Transformer	KT - 010	1	1	1
811733	Cable bind	T18MR	5	5	-
811734	Supplement disk	KP184	1	-	-
811810	"	KP185	-	1	-
936220	"	KP194	-	-	1
811877	System disk	KP188	1	-	-
811876	"	KP189	-	1	-
935885	"	KP190	-	-	1
811914	APG data convert disk	KP193	1	-	-
811642	Connector	7620 - 6002FL	1	1	1
811739	"	5483 - 03AX	1	1	1
811615	AC cable (US , CA)	UC01K - 3S - 325B - 3A	1	1	1
811619	" (AU)	SA01H - 3S - 325B - 3A	1	1	1
811620	" (GE120 , D)	JS01K - 2S - 225B - 3A	1	1	1
811616	" (GE230 , FR , SI , CE)	CE01K - 3S - 325B - 3A	1	1	1
811617	" (EG)	BS01K - 3S - 325B - 3A	1	1	1
935140	FDD cable	KMBB - 0053	1	1	-
935905	"	KMBB - 0074	-	-	1
935145	LCD cable	KMBB - 0054	1	1	-
935910	"	KMBB - 0075	-	-	1
935155	Keyboard cable	KMBB - 0051	2	2	-
935225	Heaphone cable	KMBB - 0062	1	1	-
935925	"	KMBB - 0084	-	-	1
236746	P.W.B. ass'y (GE120 , D)	KMI - 077 ~ 079 (1)	1	-	-
236747	" (US , CA)	" (2)	1	-	-
236748	" (GE230 , FR , SI , EG , CE , AU)	" (3)	1	-	-
236764	" (GE120 , D)	" (4)	-	1	-
236765	" (US , CA)	" (5)	-	1	-
236766	" (GE230 , FR , SI , EG , CE , AU)	" (6)	-	1	-
236780	" (GE120 , D)	" (7)	-	-	1
236781	" (US , CA)	" (8)	-	-	1

Code No.	Name		Pieces		
			W	S	R
236782	P.W.B. ass'y (GE230, FR, SI, EG, CE, AU)	KMI - 077 ~ 079 (9)	-	-	1
935280	PRESS Cable	KMBB - 0063	1	1	-
935285	WHEEL cable	KMBB - 0064	1	1	-
935290	Power supply cable (A)	KMBB - 0065	1	1	-
935931	//	KMBB - 0085	-	-	1
935295	Power supply cable (B)	KMBB - 0066	1	1	-
935935	//	KMBB - 0086	-	-	1
935300	FDD power supply cable	KMBB - 0067	1	1	-
935940	//	KMBB - 0087	-	-	1
935305	EL cable	KMBB - 0068	1	1	-
935945	//	KMBB - 0088	-	-	1
935310	Power supply switch cable	KMBB - 0069	1	1	-
935950	//	KMBB - 0089	-	-	1
935315	INLET cable	KMBB - 0070	1	1	-
935955	//	KMBB - 0090	-	-	1
935320	Grand cable (1)	KMBB - 0071	1	1	-
935415	VOLUME cable	KMBB - 0098	-	2	-
935920	//	KMBB - 0081	-	-	1
935600	Panel cable (B)	KMBB - 0095	-	1	-
935915	Panel cable (A)	KMBB - 0076	-	-	1
811805	Volume (11 click)	PK163110	-	2	-
936210	Ground cable	KMBB - 0080	-	-	1

P.W.B. KMI-062 Ass'y

Code No.	Name		Pieces		
			W	S	R
236742	IC	KP172 (FLASH ROM)	1	-	-
236760	//	KP175 (//)	-	1	-
236743	//	KP173 (//)	1	-	-
236761	//	KP176 (//)	-	1	-
263777	//	KP182 (//)	-	-	1
236778	//	KP183 (//)	-	-	1
804056	//	HD74HC 245FP - EL ; TP	1	1	1
805154	//	HD74HC 74FP - EL ; TP	2	2	2
805155	//	HD74HC 138FP - EL ; TP	1	1	-
807020	//	HD63266F ; TR	1	1	1
807657	//	K015FP (MB89035PF ; TR)	2	1	1
807873	//	TC74HC U04AF - TP1 ; TP	1	1	1
808618	//	K016FP (MB87822PF ; TR)	3	2	2
809360	//	K018FP (MBCE31701 - 020PF)	1	1	1
809523	//	MN19412 (A) ; TR	3	3	3
810709	//	K019 - FP (RF5C345)	1	1	-
811095	//	LC35256AM - 70 - TLM	2	2	2
811479	//	MB91103PF - G - BND	1	1	1

Code No.	Name		Pieces		
			W	S	R
811481	IC	LC7527E	1	1	1
811484	//	PCM69AU - 005	2	2	2
811486	//	M66220FP	2	1	1
811489	//	HN514260CJ - 7	1	1	1
811490	//	MSM514256B - 70JS	6	6	6
811535	//	HD74HC367FP - EL;TP	1	1	1
811645	//	PST575CMT	1	1	1
811649	//	TC74HC00AF - TP1 ; TP	1	1	1
811650	//	TC74HC32AF - TP1 ; TP	1	1	1
811651	//	TC74HC139AF - TP1	3	3	3
811652	//	TC74HC4053AF - TP1	2	2	2
811653	//	M5218AFP - 600C ; TP	4	4	4
811654	//	HA17358F - TL ; TP	1	1	1
811655	//	TA78L05F - TE12L ; TP	1	1	1
811656	//	TA79L05F - TE12L ; TP	1	1	1
811789	//	MSM511664B - 80JS	1	1	1
834870	//	KP167 (LH5332P00AN)	1	-	-
934875	//	KP168 (LH5332P00AN)	1	-	-
935340	//	KP169 (PD23C32000GX)	1	-	-
935345	//	KP170 (PD23C32000GX)	1	1	1
935420	//	KP174 (PD23C8000XGX - 321)	-	1	1
810819	Crystal resonator	SMD - 49 16.9344MHZ	1	1	1
811624	Oscillator	DSO - 49SJ 40MHZ	1	1	1
810836	Ceramic resonator	CSACS 12.0 MT - TC	1	1	-
811493	//	CSACS 20.00 MX040 - TC	1	1	1
811494	//	CSACS 16.00MX040 - TC	1	1	1
808945	Chip bead	BK2125HS601 - T	7	7	7
809000	Chip fixed resistor	MCR10EZHJ0R0	82	98	74
809025	//	MCR10EZHJ101	39	39	15
809037	//	MCR10EZHJ102	40	43	37
809041	//	MCR10EZHJ222	6	6	6
809045	//	MCR10EZHJ472	11	11	11
809047	//	MCR10EZHJ682	1	1	1
809049	//	MCR10EZHJ103	41	45	28
809073	//	MCR10EZHJ105	2	2	1
811771	//	RK73H2ATD1001F	2	2	1
809074	Chip ceramic capacitor	MCH215SL050JK	4	4	4
809075	//	UMK212CH100DQ	1	1	1
809079	//	MCH215SL220JK	4	4	4
809091	//	MCH215SL221JK	2	2	2

Code No.	Name		Pieces		
			W	S	R
809099	Chip ceramic capacitor	MCH212F104ZK	72	72	71
809840	//	UMK212CH101JQ	6	6	6
809843	//	UMK212B222KQ	2	2	2
810159	//	MCH215C223JK	2	2	2
810820	//	MCH215SL300JK	4	4	2
811687	//	TMK212B122K	2	2	2
811689	//	TMK212B272K	2	2	2
811691	//	TMK212B562K	4	4	4
811693	//	TMK212B822K	2	2	2
811694	//	TMK212B123K	2	2	2
811695	//	TMK212B153K	2	2	2
811696	//	TMK212B333K	2	2	2
811697	//	TMK212B683K	2	2	2
811698	//	EMK212BJ154K	2	2	2
811700	//	EMK212BJ334K	2	2	2
811702	//	EMK316BJ684K	2	2	2
811703	//	EMK212F105Z	4	4	4
811742	//	UMK212SL820K	2	2	2
811744	//	LMK316F106Z	13	13	13
811646	Chip inductor	LK2125 R56K - T	1	1	1
811647	//	LK2125 1R0K - T	2	2	2
808941	Electrolytic capacitor	MV16V47 (M) F55 (6.3)	2	2	2
811811	//	MV16VC10 (M) B55	4	4	4
804571	Connector	B4B - PH - K - S	1	1	-
804573	//	B7B - PH - K - S	1	1	-
811642	//	7620 - 6002 FL	1	1	1
811669	//	1 - 215079 - 6	2	2	-
811740	//	7634 - 6002 FL	1	1	1
811741	//	5483 - 06AX	1	1	1
811851	//	3 - 177986 - 2	1	1	1
806001	Wire trap	52147 - 1510	1	1	-
807447	//	52147 - 1410	1	1	1
807645	//	52147 - 0610	1	1	1
935325	Printed wiring board	KMI - 062	1	1	1
805009	Connector	IL - S - 10P - S2T2 - EF	-	1	-
805014	//	IL - S - 15P - S2T2 - EF	-	-	1

P.W.B.KMI - 064 ~ 70 (W Type),081 ~ 089(S Type),091 ~ 096(R Type)ASS'Y

Code No.	Name		Pieces		
			W	S	R
805043	IC	TA75358 CP	1	1	-
805133	//	TC74HC 573	2	1	1
803995	//	TC74HC 4051 AP	-	4	-
800625	Diode	1SS133	66	55	39
802050	Resistor array	RGLD 8 × 103J	1	1	1
801037	Carbon resistor	AT R20 J 101	2	2	-
801045	//	AT R20 J 471	2	-	-
801050	//	AT R20 J 122	3	3	-
801057	//	AT R20 J 472	1	1	-
801061	//	AT R20 J 103	6	8	1
801073	//	AT R20 J 104	1	1	-
801043	//	AT R20 J 331	-	4	2
801049	//	AT R20 J 102	-	2	-
808752	Ceramic capacitor	AT EP050F 473Z	3	8	1
809252	//	AT UP050B 102K	3	3	3
806397	Electrolytic capacitor	RC3 50V 1 μ F	2	2	-
811772	//	UMA0G101MDA 4V/5MM	1	1	-
811657	LED	LT3E43B	1	-	-
808804	//	LT3D43B	1	4	-
810612	//	LT1D21A	-	-	2
808345	Tact switch	SOR - 123HS	64	53	39
805764	Coil	SBT - 0160W	2	2	2
802077	Trimmer resistor	4.7KB KVSF 637A	1	1	-
811745	//	471B KVSF 637A	1	1	-
811594	Volume	RS45112AC 10KB × 2 (Slide)	2	2	-
811912	//	RK09L12B0 10KB (with N / W)	-	-	2
711082	Connector	171826 - 4	1	1	-
805014	//	IL - S - 15P - S2T2 - EF	-	-	1
806173	Flat cable	12 × 140 (P2.0)	1	-	-
808258	//	15 × 150 (P2.0)	1	-	-
808886	//	15 × 170 (P2.0)	1	1	-
811071	//	3 × 110 (P2.0)	1	1	-
811736	//	12 × 230 (P2.0)	1	1	-
811806	//	6 × 420 (P2.0)	-	1	-
811944	//	14 × 180 (P2.0)	-	1	-
809301	//	12 × 350 (P2.0)	-	-	1
806419	//	4 × 90(P2.0)	-	-	1
811957	//	3 × 90(P2.0)	-	-	2
806003	Cable holder	51048 - 0300	2	2	2
806004	//	51048 - 0400	-	-	1

Code No.	Name		Pieces		
			W	S	R
806005	Cable holder	51048 - 1200	3	1	1
806669	//	51048 - 1500	3	1	-
806241	//	51048 - 0600	-	2	-
807449	//	51048 - 1400	-	2	-
803439	Jack	YKB21 - 5074	1	1	1
803034	//	YKB21 - 5012	-	2	-
804571	Cnnector	B4B - PH - K - S	1	1	-
804576	//	B12B - PH - K - S	-	-	1
805071	//	B3B - PH - K - S	1	1	1
805637	//	S3B - PH - K - S	-	2	-
811848	Connector base	IL - S - 10P - S2L2 - EF	-	1	-
811761	Encoder	EC16B242042CA(with N/W)	1	1	-
811939	//	EC16B24204(with N/W)	-	-	1
811730	Earth cable	1007 #18 Black 50 5 - T (3)	1	1	-
935100	Headphone fix metal	KMFB - 0074	1	1	-
935900	//	KMFB - 0085	-	-	1
934965	Jack fix metal (2)	KSFB - 0060	-	1	-
935430	Volume fix metal	KMFB - 0080	-	1	-
935330	Printed wiring board	KMI - 064 ~ 070	1	-	-
935425	//	KMI - 081 ~ 089	-	1	-
935895	//	KMI - 091 ~ 096	-	-	1
805850	Digital Transistor	DTA143ES	-	4	-
810851	//	DTC143ES	-	1	-
811844	Volume	RK11K 114 KZVB - 0107 with N/W	-	18	-
809406	Wire trap	52151 - 0410	-	1	-
805998	//	52147 - 0310	-	-	2
805999	//	52147 - 0410	-	-	1
806000	//	52147 - 1210	-	-	1

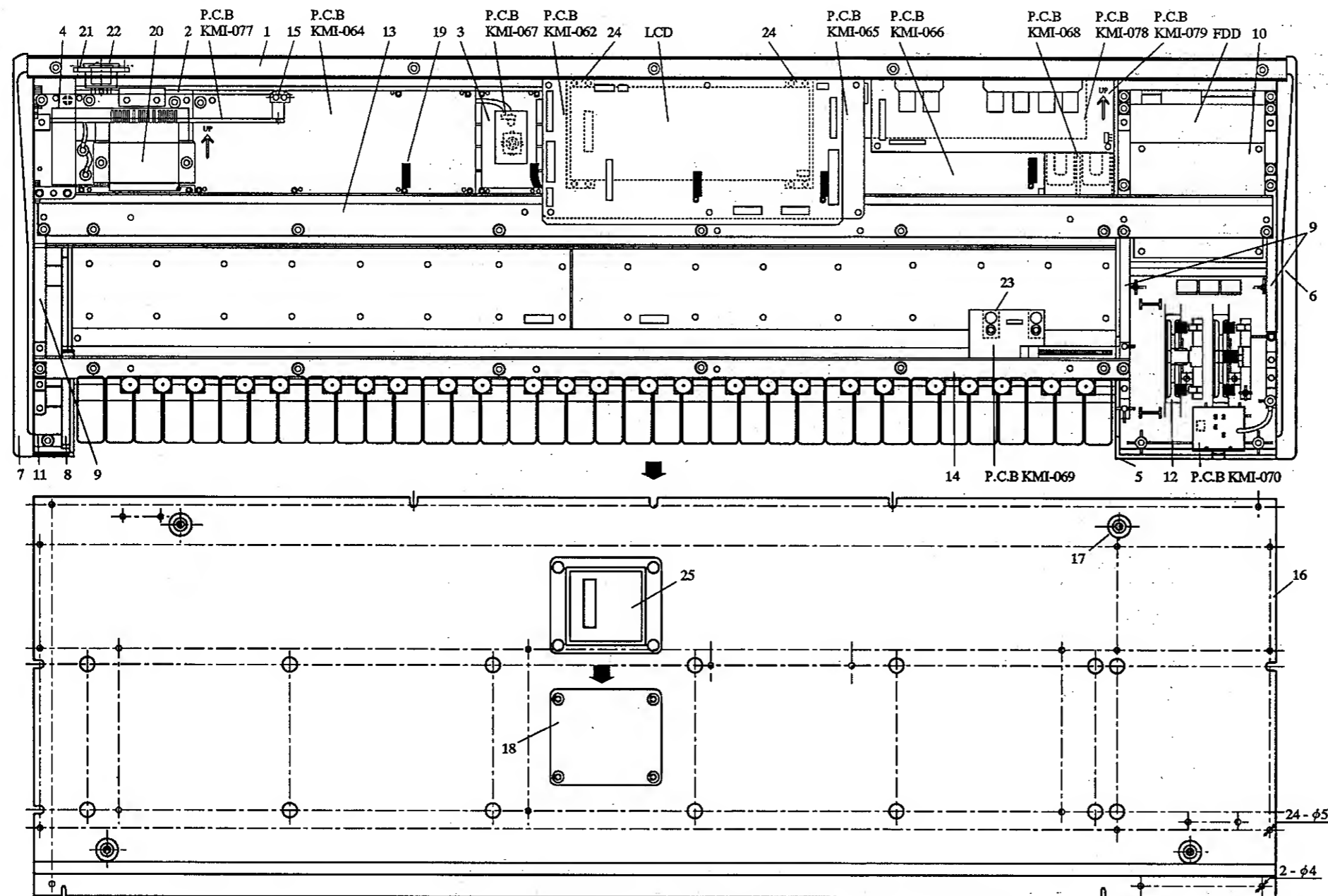
P.W.B.KMI - 077 ~ 079 ASS'Y

Code No.	Name		Pieces		
			W	S	R
800676	IC	M5218AP	2	2	2
801861	//	M5216P	2	2	2
806719	//	PC900V	2	1	1
811487	//	M5291P	1	1	1
811660	//	PC78M12AHF	1	1	1
811661	//	PC79M12HF	1	1	1
811589	Transistor	2SA1641S (T)	1	1	1
811590	//	2SD1246S (T)	1	1	1
805984	//	2SD1468SR	6	6	6
807661	//	2SC1815Y	1	1	1

Code No.	Name	Pieces			
		W	S	R	
810851	Digital transistor	DTC143ES	10	6	6
811758	//	DTB113ZS	1	1	1
811759	Posistor	PTH8L05BA1R8M1B550	1	1	1
811951	//	PTH8L07BD100N2B550	1	1	-
808952	Diode	DBF40B	1	1	1
800625	//	1SS133	8	7	7
805852	//	1SR139 - 400YT - 32	5	5	5
811658	//	SB20 - 04A	1	1	1
803591	Zener diode	HZS - 2BLL	1	1	1
809243	//	GZB - 6.2 C / B	1	1	1
800766	Metal oxide film resistor	CRB 20 FX 1001	1	1	1
809432	//	CRB 20 FX 3301	1	1	1
811753	Flame retardant resistor	RDF50SS271J	1	1	1
811767	//	RDF50SS101J	4	4	4
801037	Carbon resistor	AT R20 J 101	6	4	4
801041	//	AT R20 J 221	8	4	4
801049	//	AT R20 J 102	4	3	1
801053	//	AT R20 J 222	1	1	1
801057	//	AT R20 J 472	10	7	7
801061	//	AT R20 J 103	11	11	10
801065	//	AT R20 J 223	6	6	6
804862	//	AT R25 G 102	10	10	10
707333	Electrolytic capacitor	25V 1000 μ F	2	2	2
804455	//	25V 4700 μ F	1	1	1
805923	//	16V 10 μ F	2	2	2
805992	Electrolytic capacitor	6.3V 1000 μ F	2	2	2
808738	//	25V 470 μ F	1	1	1
811808	//	4.7 μ F 25V (105°C)	2	2	2
811809	//	100 μ F 16V (105°C)	2	2	2
802799	//	BP16V 10 μ F	8	8	8
807557	Film capacitor	50VJ 223	3	3	3
808752	Ceramic capacitor	AT EP050 F 473Z	5	4	1
808957	//	AT UP050 B 471K	1	1	1
809245	//	AT UP050 B 151K	2	2	2
809252	//	AT UP050 B 102K	8	12	8
809904	//	AT UP050 SL 470J	4	4	4
802576	Jack	YKB21 - 5006	2	2	2
803034	//	YKB21 - 5012	2	2	2
803439	//	YKB21 - 5074	2	2	-
805736	MIDI connector	YKF51- 5046	2	1	1
802906	Connector	B4P - VH	1	1	1

Code No.	Name		Pieces		
			W	S	R
803428	Cnnector	B3P - VH	1	1	1
805071	//	B3B - PH - K - S	1	1	1
810837	//	5483 - 04AX	2	2	2
811739	//	5483 - 03AX	1	1	1
811741	//	5483 - 06AX	1	1	1
804576	//	B12B - PH - K - S	-	-	1
806000	Wire trap	52147 - 1210	1	1	-
806241	Cable holder	51048 - 0600	1	1	1
806004	//	51048 - 0400	-	1	-
807449	//	51048 - 1400	1	1	1
811737	Flat cable	6 × 100(P2.0)	1	1	-
812035	//	14 × 70(P2.0)	1	1	-
811807	//	4 × 30(P2.0)	-	1	-
811955	//	6 × 290(P2.0)	-	-	1
811956	//	14 × 270(P2.0)	-	-	1
804831	EMI coil	SU10VD - 10010	1	1	1
809305	Toroidal coil	SKP2 - 50	1	1	1
810263	Spiral cable	1015 #18 75 5 - T	1	1	1
811659	Tansformer	S147948	1	1	1
811760	Bead core	BP53RA030010040M	1	1	1
808964	Fuse crip	H - 0060	2	2	2
811709	IC protector	ICP - N25	1	1	1
811711	Capacitor	DE16101E472MKX	2	2	2
811754	//	DE09101E102MKX	2	2	2
934965	Jack fix metal (2)	KSFB - 0060	1	1	1
935090	// (4)	KMFB - 0072	1	1	1
935435	Printed wiring board fix metal	KMFB - 0079	-	1	1
935335	Printed wiring board	KMI - 077 ~ 079	1	1	1
711086	Connector	171825 - 4	1	1	1
711757	Fuse (GE230 , FR ,SI , EG , CE)	SET 0.16A 250V	1	1	1
811755	// (GE120 , D)	(A) TSC 0.5A 125V	1	1	1
811756	// (US , CA)	(UL) TSC 0.5A 125V	1	1	1

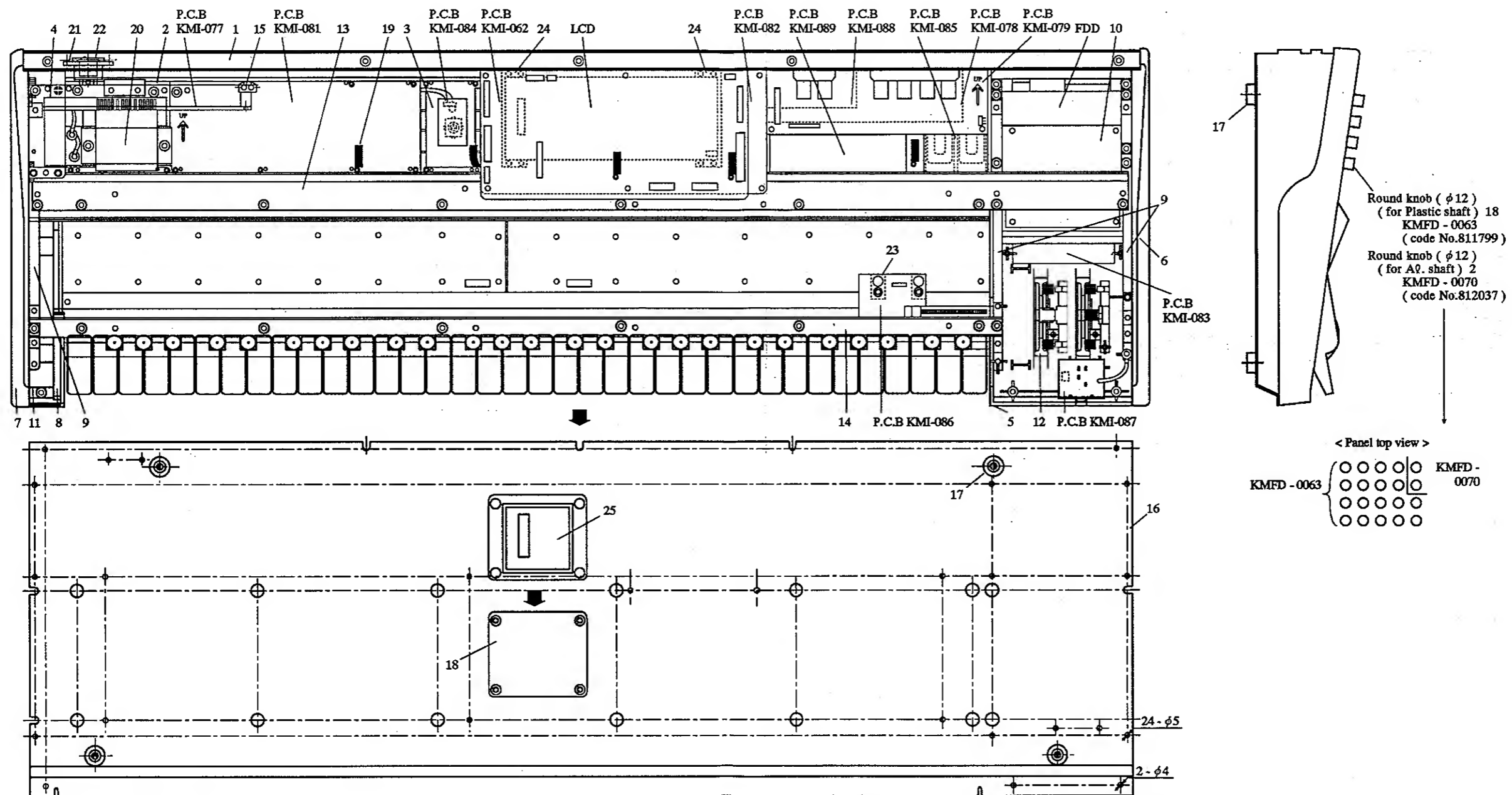
2. OPENING PROCEDURE(W type)



No.	Code No.	Name	Pieces	No.	Code No.	Name	Pieces
1	935395	Panel	1	14	935060	Metal for front of keyboard	1
2	935065	Metal for transformer	1	15	935095	Metal for power supply P.C.B.	1
3	935080	Metal for encoder	1	16	935045	Metal for base	1
4	811632	Insulation sheet	1	17	811635	Leg	4
5	811625	End block	1	18	935410	Base lid	1
6	811626	Side block (L)	1	19	811733	Cable bind	5
7	811627	Side block (R)	1	20	811648	Transformer	1
8	811628	Side block cover	1	21	811643	AC inlet	1
9	935050	Metal for side block (R)	2	22	811534	Switch	1
	935051	Metal for side block (L)	1	23	910030	Metal for P.C.B.	2
10	935070	Metal for FDD	1	24	935085	Metal for LCD (R)	1
11	935150	Reinforcement for side block	1		935086	Metal for LCD (L)	1
12		wheel ass'y	2	25	811849	Partition sheet	1
13	935055	Metal for rear of keyboard	1				

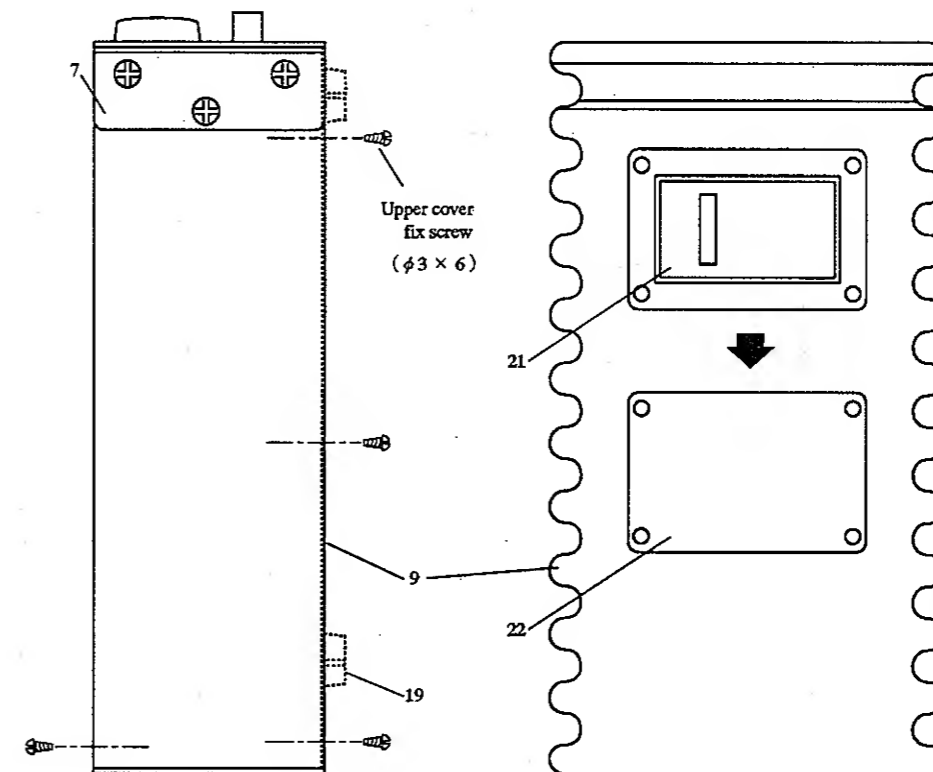
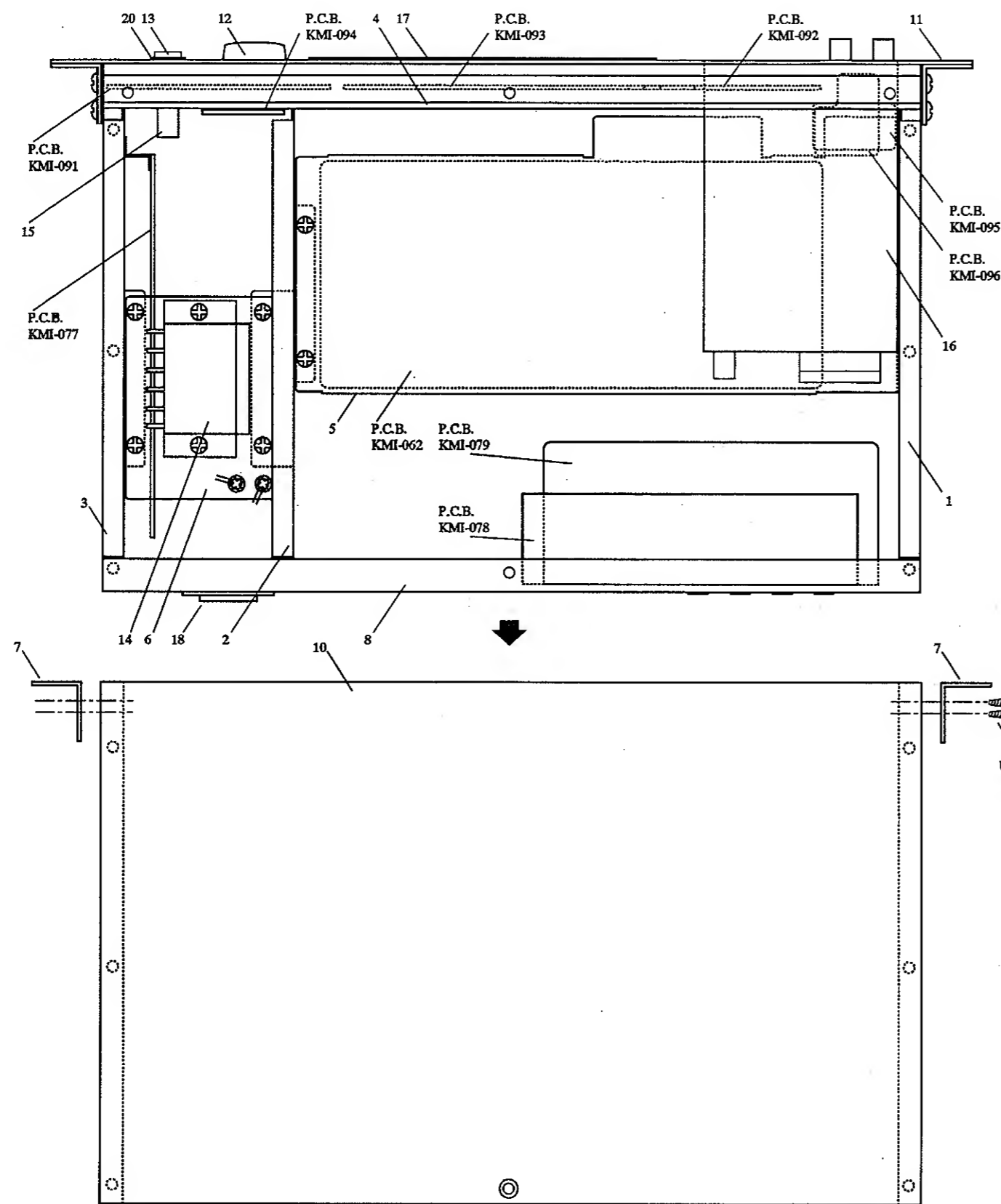
A B C D E F G H I

3. OPENING PROCEDURE(S type)



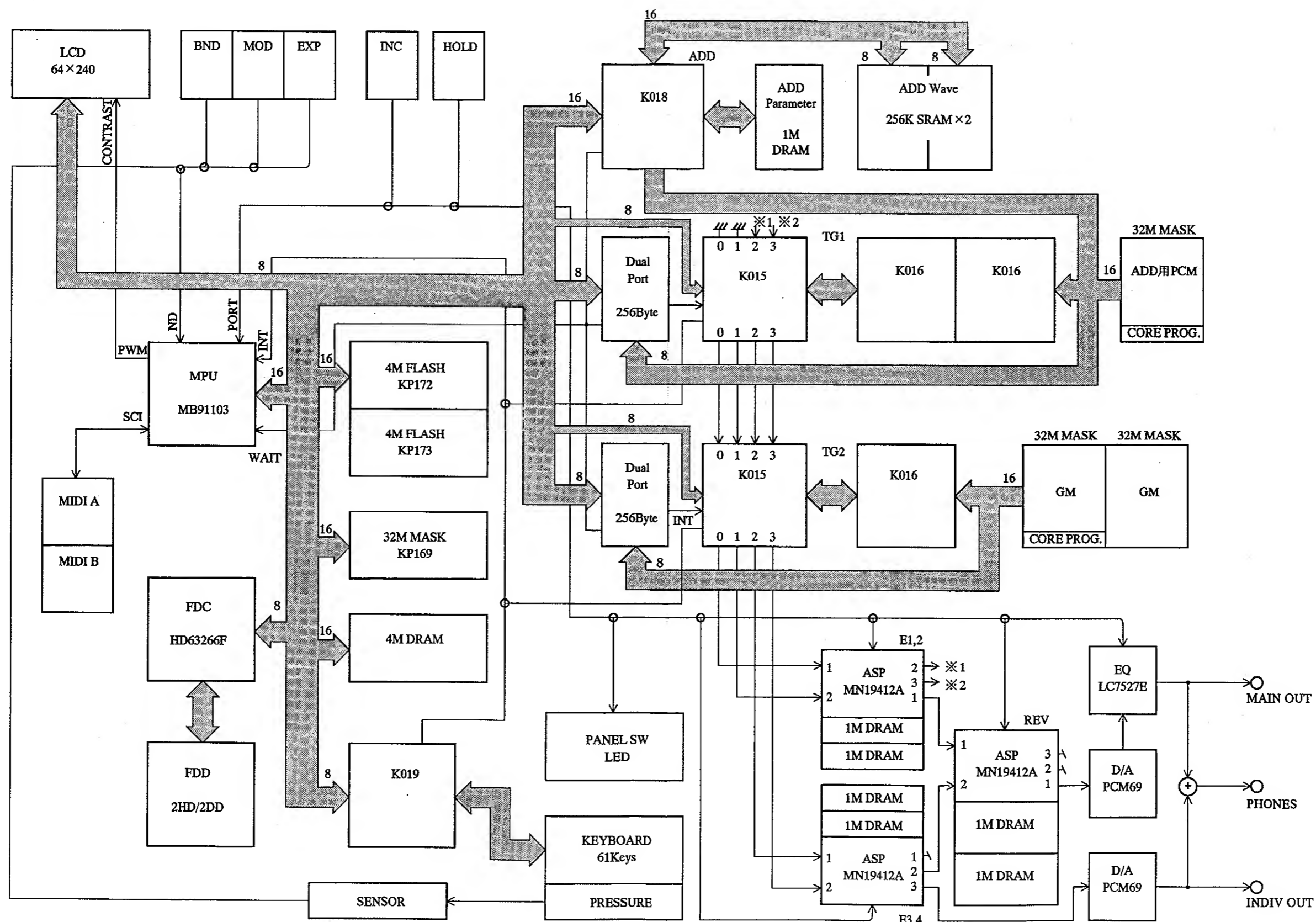
No.	Code No.	Name		Pieces	No.	Code No.	Name		Pieces
1	935395	Panel	KMFB-0061	1	14	935060	Metal for front of keyboard	KMFB-0065	1
2	935065	Metal for transformer	KMFB-0066	1	15	935095	Metal for power supply P.C.B.	KMFB-0073	1
3	935080	Metal for encoder	KMFB-0070	1	16	935045	Metal for base	KMFB-0076	1
4	811632	Insulation sheet	KMFD-0059	1	17	811635	Leg	PL-10	4
5	811625	End block	KMFD-0061	1	18	935410	Base lid	KMFB-0077	1
6	811626	Side block (L)	KMFD-0053	1	19	811733	Cable bind	T18MR	5
7	811627	Side block (R)	KMFD-0054	1	20	811648	Transformer	KT-010	1
8	811628	Side block cover	KMFD-0055	1	21	811643	AC inlet	AC-P01CF01	1
9	935050	Metal for side block (R)	KMFB-0083	2	22	811534	Switch	EST206B	1
	935051	Metal for side block (L)	KMFB-0083	1	23	910030	Metal for P.C.B.	EPFB-1008	2
10	935070	Metal for FDD	KMFB-0067	1	24	935085	Metal for LCD (R)	KMFB-0071	1
11	935150	Reinforcement for side block	KMFB-0082	1		935086	Metal for LCD (L)	KMFB-0071	1
12		wheel ass'y		2	25	811849	Partition sheet	KMFB-0072	1
13	935055	Metal for rear of keyboard	KMFB-0064	1					

4. OPENING PROCEDURE(R type)

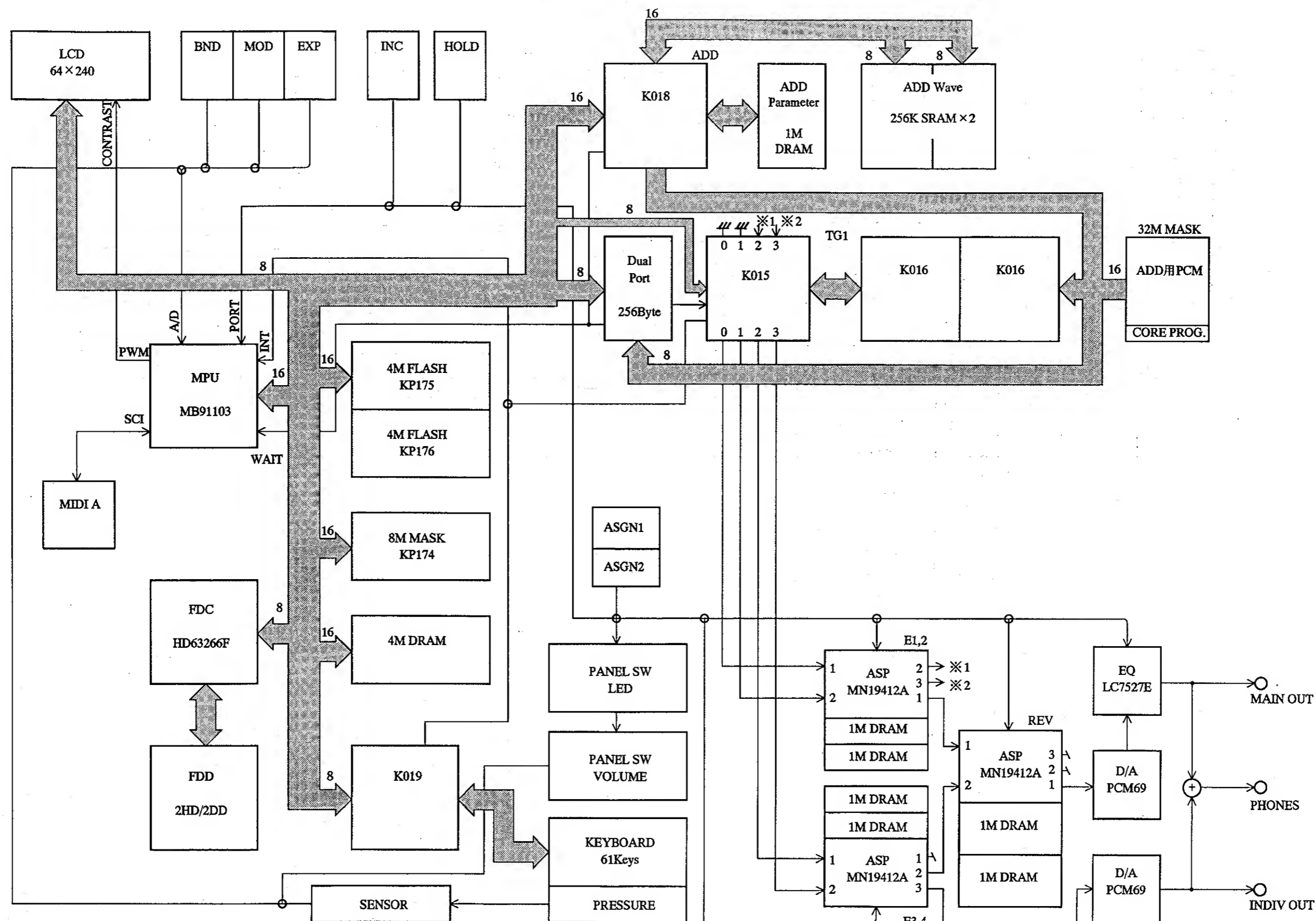


No.	Code No.	Name		Pieces
1	935825	Rib (L)	KMFB - 0099	1
2	935830	Rib (C)	KMFB - 0087	1
3	935835	Rib (R)	KMFB - 0098	1
4	935840	Front chassis	KMFB - 0089	1
5	935845	Metal for main P.C.B.	KMFB - 0090	1
6	935850	Metal for transformer	KMFB - 0091	1
7	935855	Reinforcement for panel	KMFB - 0092	2
8	935860	Rear panel	KMFB - 0093	1
9	935865	Metal for base	KMFB - 0076	1
10	935870	Upper cover	KMFB - 0095	1
11	935875	Front panel	KMFB - 0097	1
12	808574	Incrementer knob	KMFD - 0018	1
13	810031	Power switch knob	KMFD - 0008	1
14	811648	Transformer	KT - 010	1
15	811534	Switch	EST206B	1
16	811488	FDD	MF355F - 2252MG	1
17		LCD covre ass'y	KMBN - 0003	1
18	811643	AC inlet	AC - P01CF01	1
19	811901	Case leg	FF - 004 (A)	4
20	811104	Power switch knob guide	KPFD - 0009	1
21	811849	Partition sheet	KMFD - 0072	1
22	935410	Base lid	KMFB - 0077	1

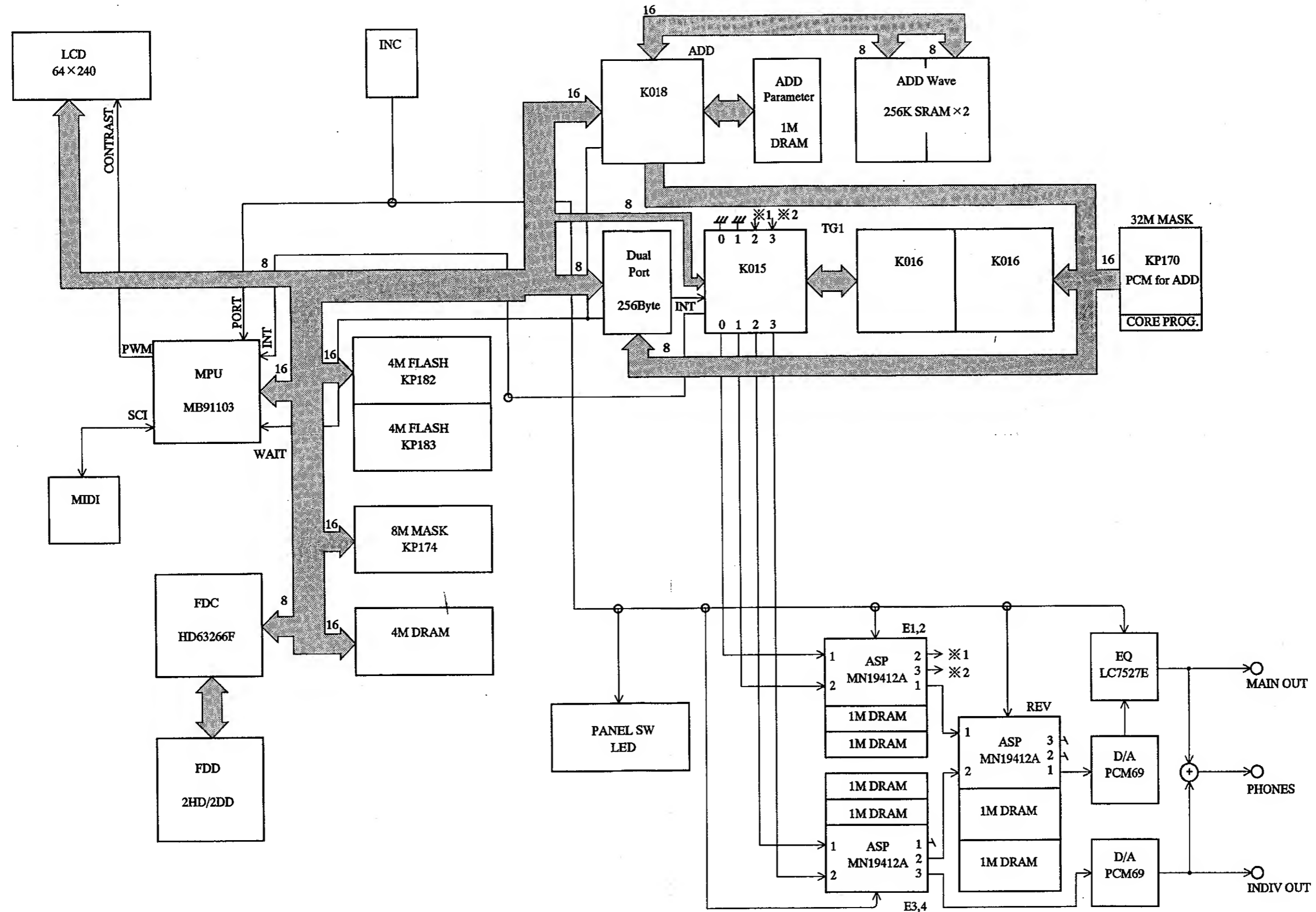
5. BLOCK DIAGRAM(W type)



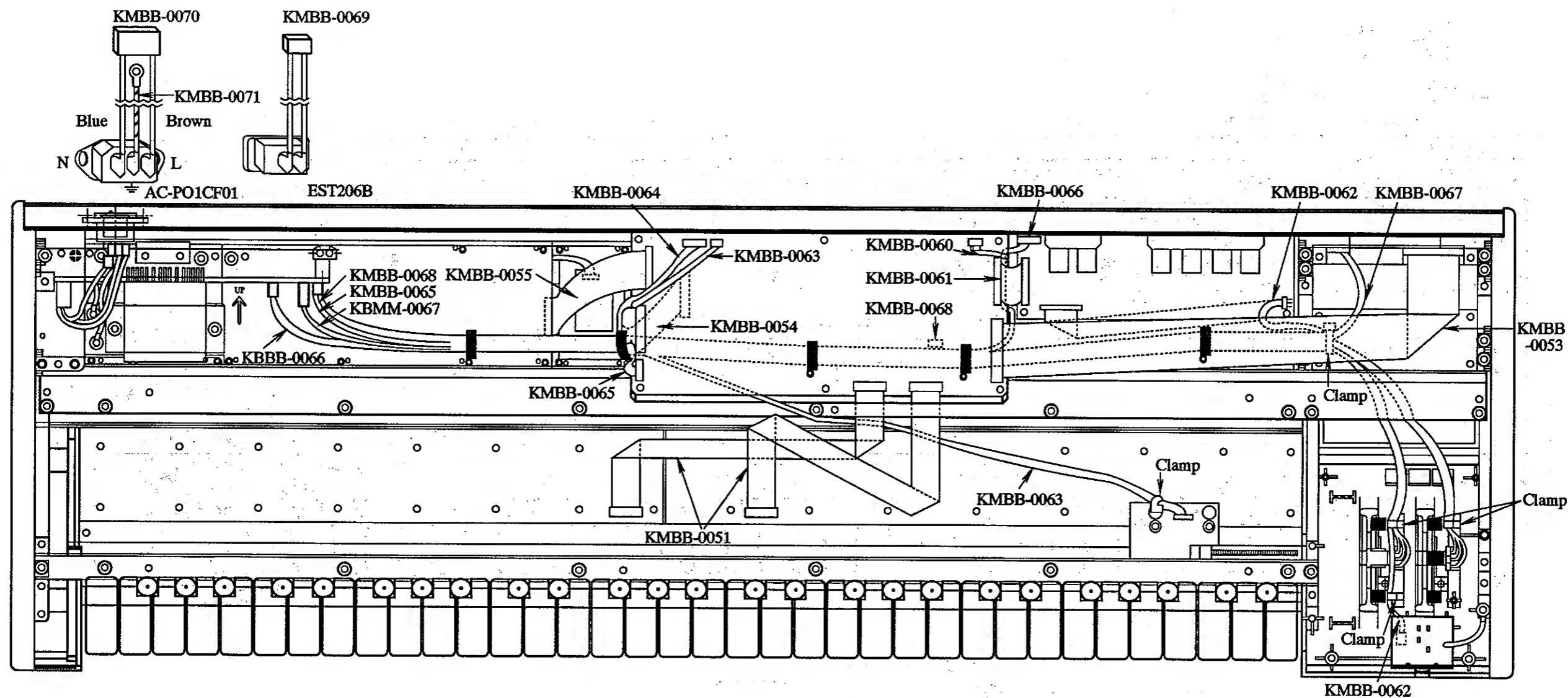
6. BLOCK DIAGRAM(S type)



7. BLOCK DIAGRAM(R type)



8. WIRING CONNECTION(W type)



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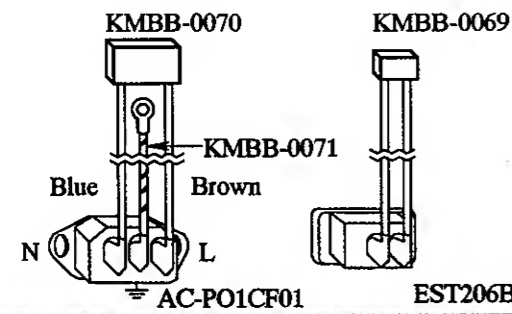
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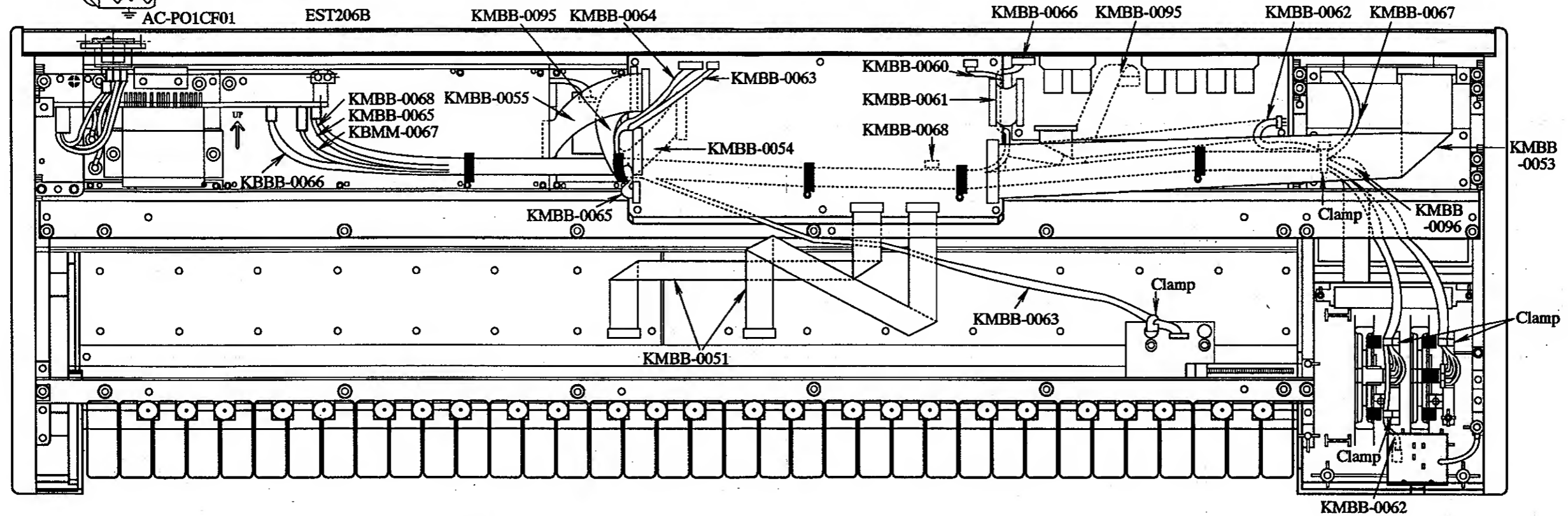
9. WIRING CONNECTION(S type).

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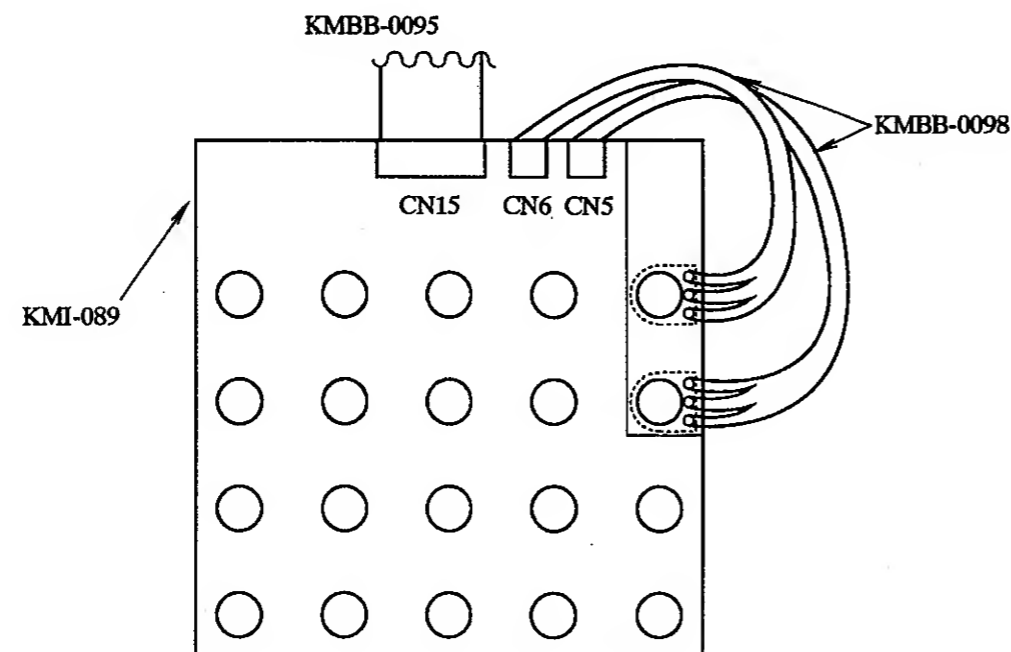
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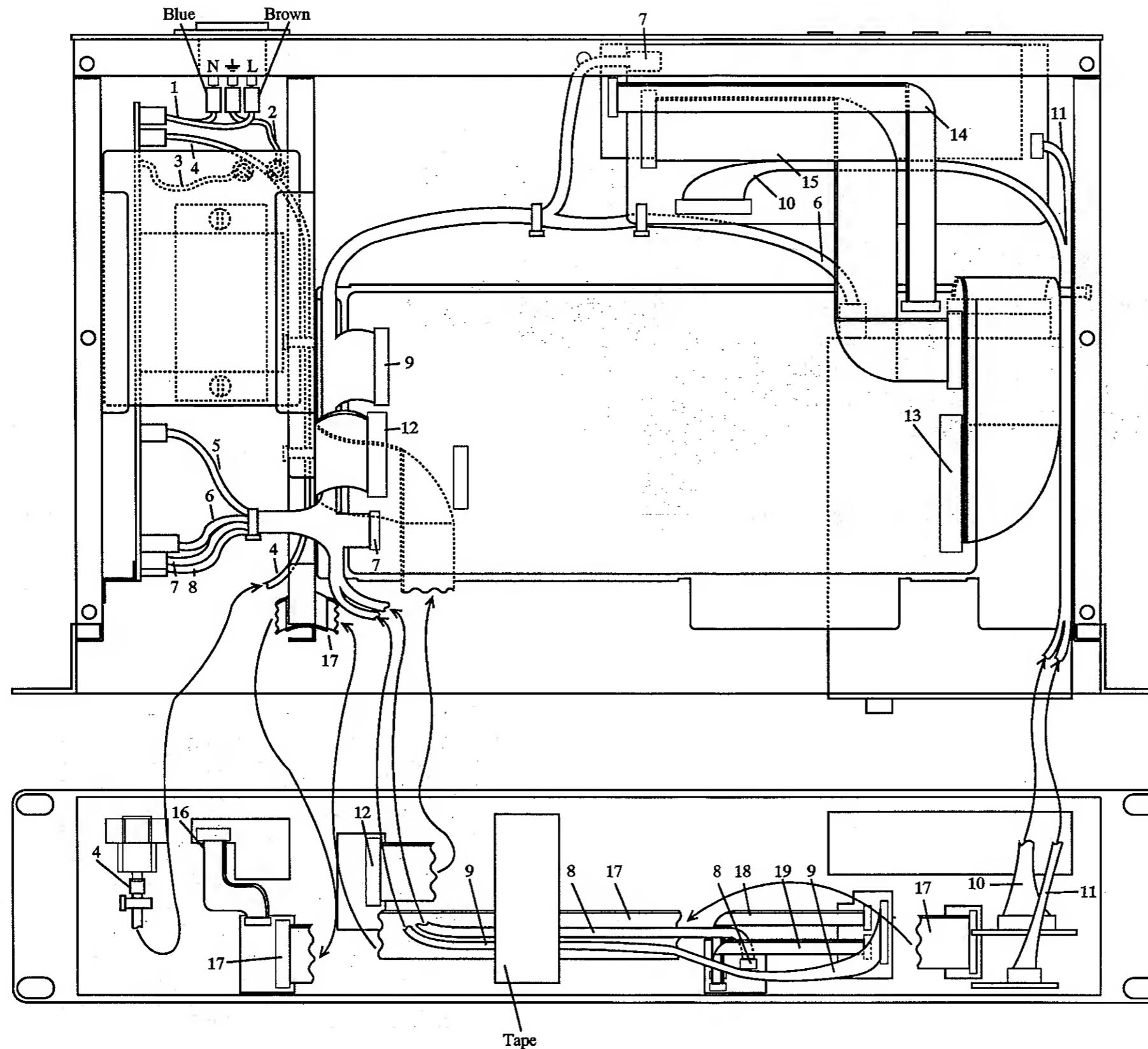
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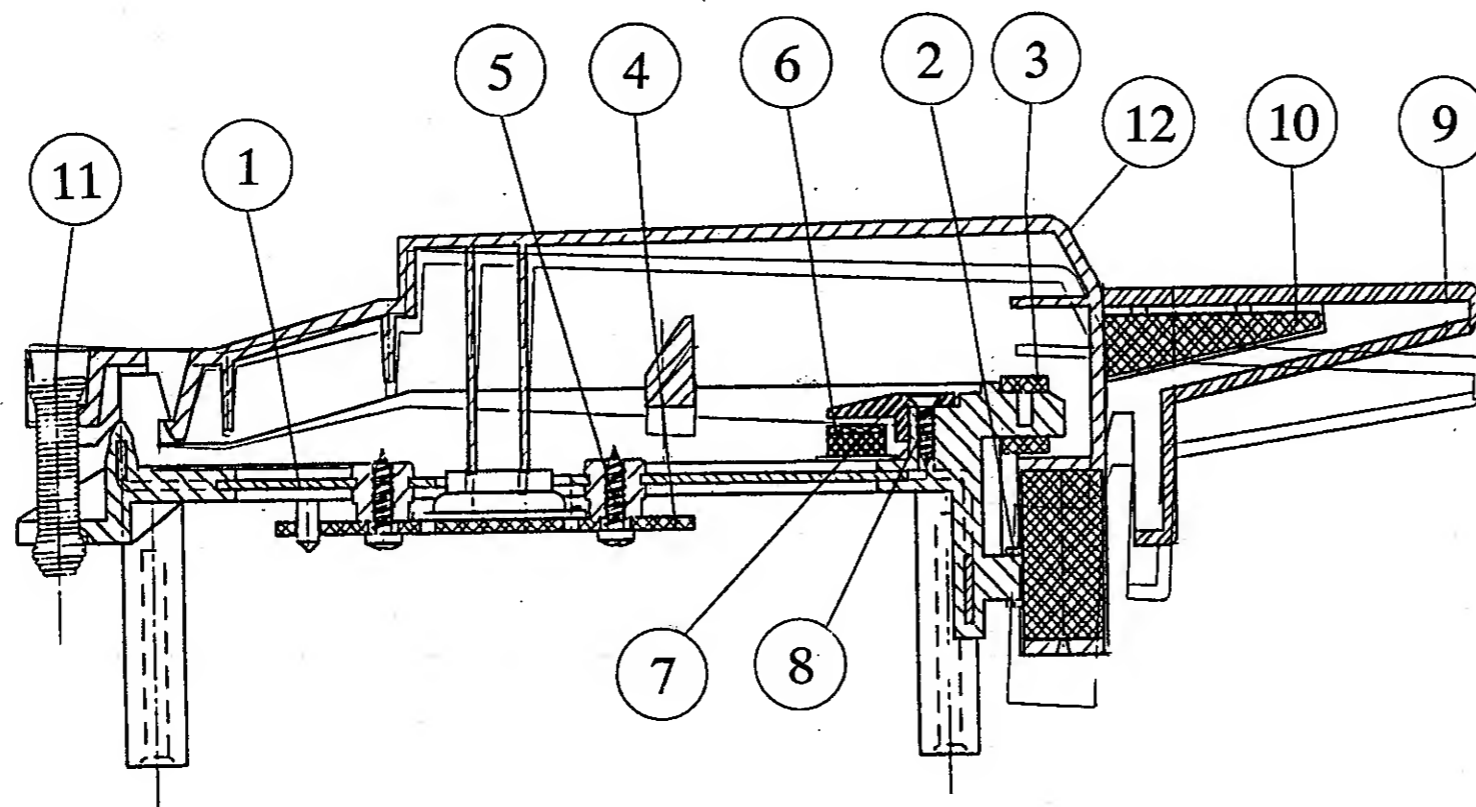
10. WIRING CONNECTION(R type)



No.	Cable name
1	KMBB-0090
2	KMBB-0080
3	KMBB-0073
4	KMBB-0089
5	KMBB-0086
6	KMBB-0087
7	KMBB-0085
8	KMBB-0088
9	KMBB-0076
10	KMBB-0081
11	KMBB-0084
12	KMBB-0075
13	KMBB-0074
14	KMBB-0082
15	KMBB-0083
16	KMBB-0078
17	KMBB-0079
18	KMBB-0078
19	KMBB-0077

A B C D E F G H I

11. KEYBOARD ASSEMBLY(TP / 8S type)



No.	Description	Qty	Code	Remarks
1	Key frame	1	42247820	
2	Rubber bush for white key	36	42363030	
3	Rubber cussion	61	24241010	
4	Key switch PCB with rubber switch (32keys)	1	42911930	DR
	Key switch PCB with rubber switch (25keys)	1	42911920	
5	Screw	34	21231100	φ 3 × 9.5mm
6	Strip for after touch	1	42301071	
7	Support plate for after touch	6	42315170	
8	Screw	6	21122020	φ 2.2 × 9.5mm
9	White key	36	42360560	
10	Weight for white key	36	42365730	
11	Spring	61	23105330	
12	Black key	25	42123440	

12. KMI-062 PRINTED WIRING BOARD

DG	1
HD	2
DG	3
NC	4
DG	5
NC	6
DG	7
INDEX	8
DG	9
DRIVE / SELECT0	10
DG	11
DRIVE / SELECT1	12
DG	13
NC	14
DG	15
MOTOR ON	16
DG	17
DIRECTION SELECT	18
DG	19
STEP	20
DG	21
WRITE DATA	22
DG	23
WRITE GATE	24
DG	25
TRACK 00	26
DG	27
WRITE PROTECT	28
DG	29
READ DATA	30
DG	31
SIDE ONE SELECT	32
DG	33
DISK CHANGE	34

AG	14
LINE - L	13
LINE - R	12
INDV - L	11
INDV - R	10
SEL	9
+12A	8
-12A	7
AG	6
MUTE	5
REFH	4
REFL	3
EXP	2
HOLD	1

6	5	4	3	2	1
MIDI IN A	MIDI IN B	MIDI IN C	MIDI IN D	MIDI IN E	MIDI IN F

KEYBOARD															
MK4	BR4	MK5	BR5	MK6	BR6	MK7	BR7	T7	T6	T5	T4	T3	T2	T1	T0
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

KEYBOARD															
MK0	BR0	MK1	BR1	MK2	BR2	MK3	BR3	T7	T6	T5	T4	T3	T2	T1	T0
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

1	+5D
2	+5D
3	DG
4	DG
5	PDOWN
6	PCONT

20	NC
19	FS
18	DB7
17	DB6
16	DB5
15	DB4
14	DB3
13	DB2
12	DB1
11	DB0
10	RESET
9	NC
8	C/D
7	CE
6	RD
5	WR
4	VO
3	VDD
2	VSS
1	FG

1	DG
2	AN7
3	AN6
4	AN5
5	AN4
6	PAR2
7	PAR1
8	PAR0
9	+5
10	DG

1	+5
2	GND
3	+5
4	GND
5	NC
6	NC
7	NC
8	NC
9	A19
10	A18
11	A17
12	A16
13	A15
14	A14
15	A13
16	A12
17	A11
18	A10
19	A9
20	A8
21	A7
22	A6
23	A5
24	A4
25	A3
26	A2
27	A1
28	NC
29	D31
30	D30
31	D29
32	D28
33	D27
34	D26
35	D25
36	D24
37	D23
38	D22
39	D21
40	D20
41	D19
42	D18
43	D17
44	D16
45	WE
46	RD
47	DWIX
48	CAS1H
49	CAS1L
50	RAS1
51	CS5X
52	P87
53	P86
54	RY - BY
55	-LRES
56	NC
57	+5
58	GND
59	+5
60	GND

CN3						
7	6	5	4	3	2	1
GND	BENDER	+5V	+2.5V	GND	MOD.W	+5V

CN6			
4	3	2	1
+12A	PRESS	GND	+5V

1	BIN0
2	AIN0
3	PLE2
4	PLE1
5	POE
6	PD7
7	PD6
8	PD5
9	PD4
10	PD3
11	PD2
12	PD1
13	PD0
14	GND
15	+5D

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13. KMI-062 PRINTED WIRING BOARD(Solder side)

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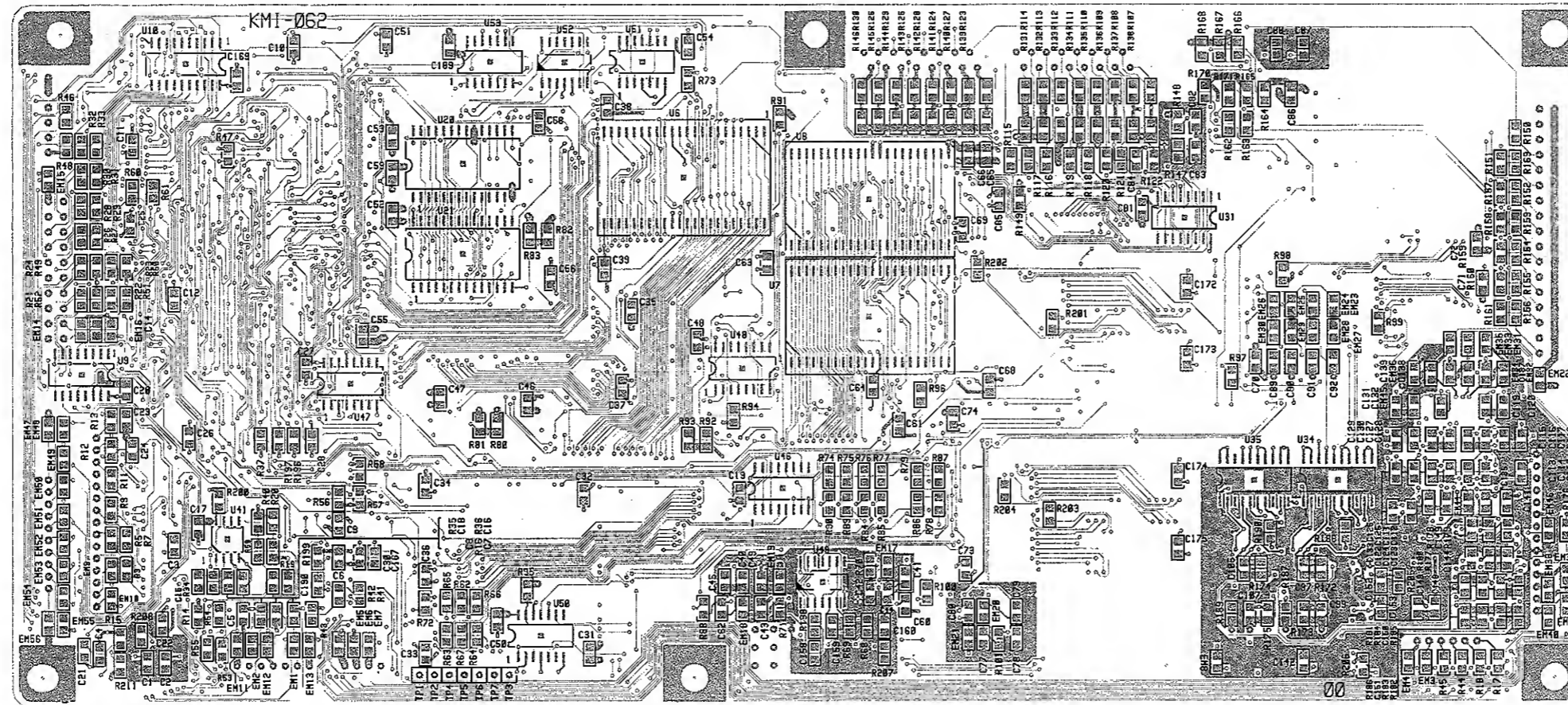
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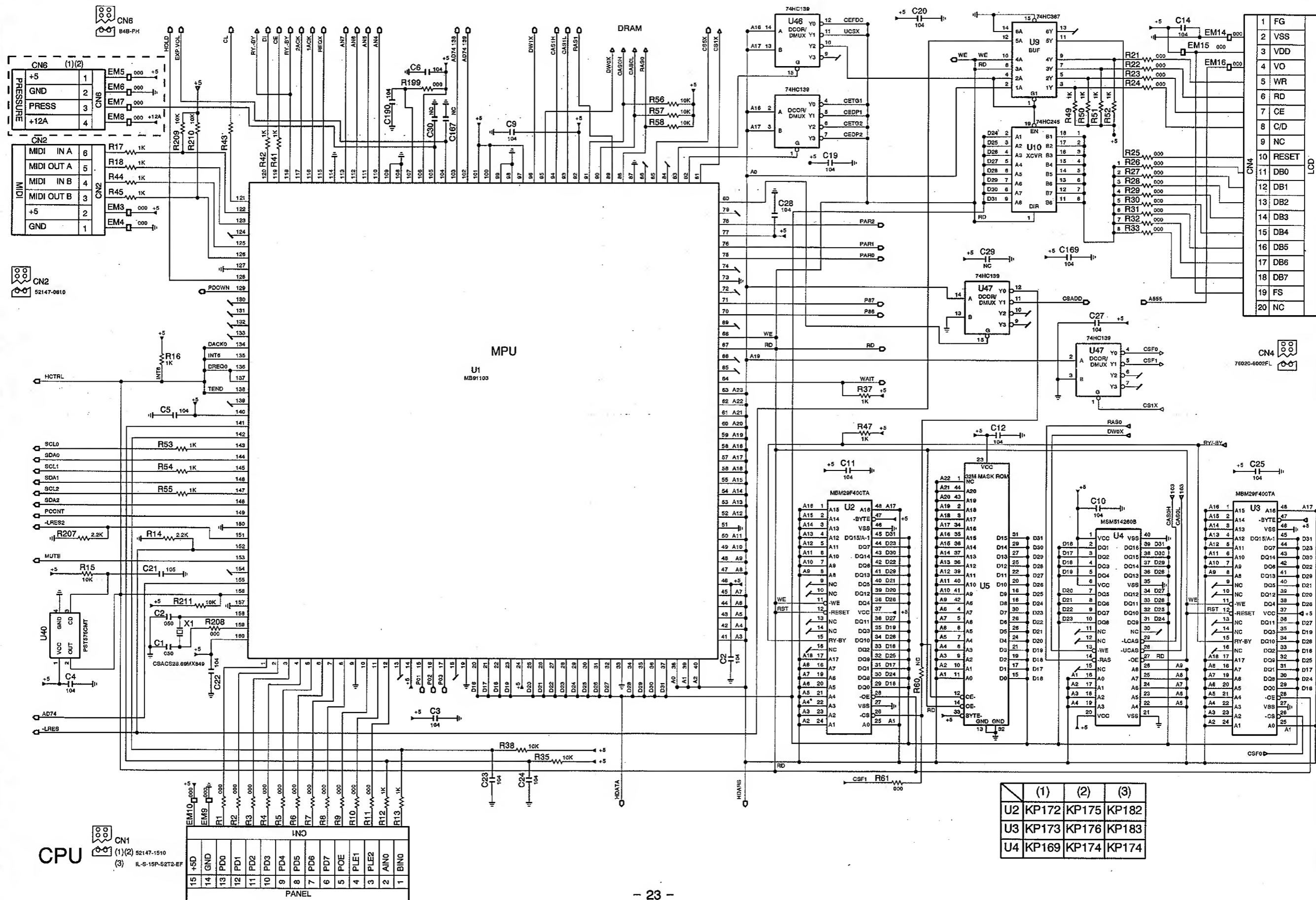
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6

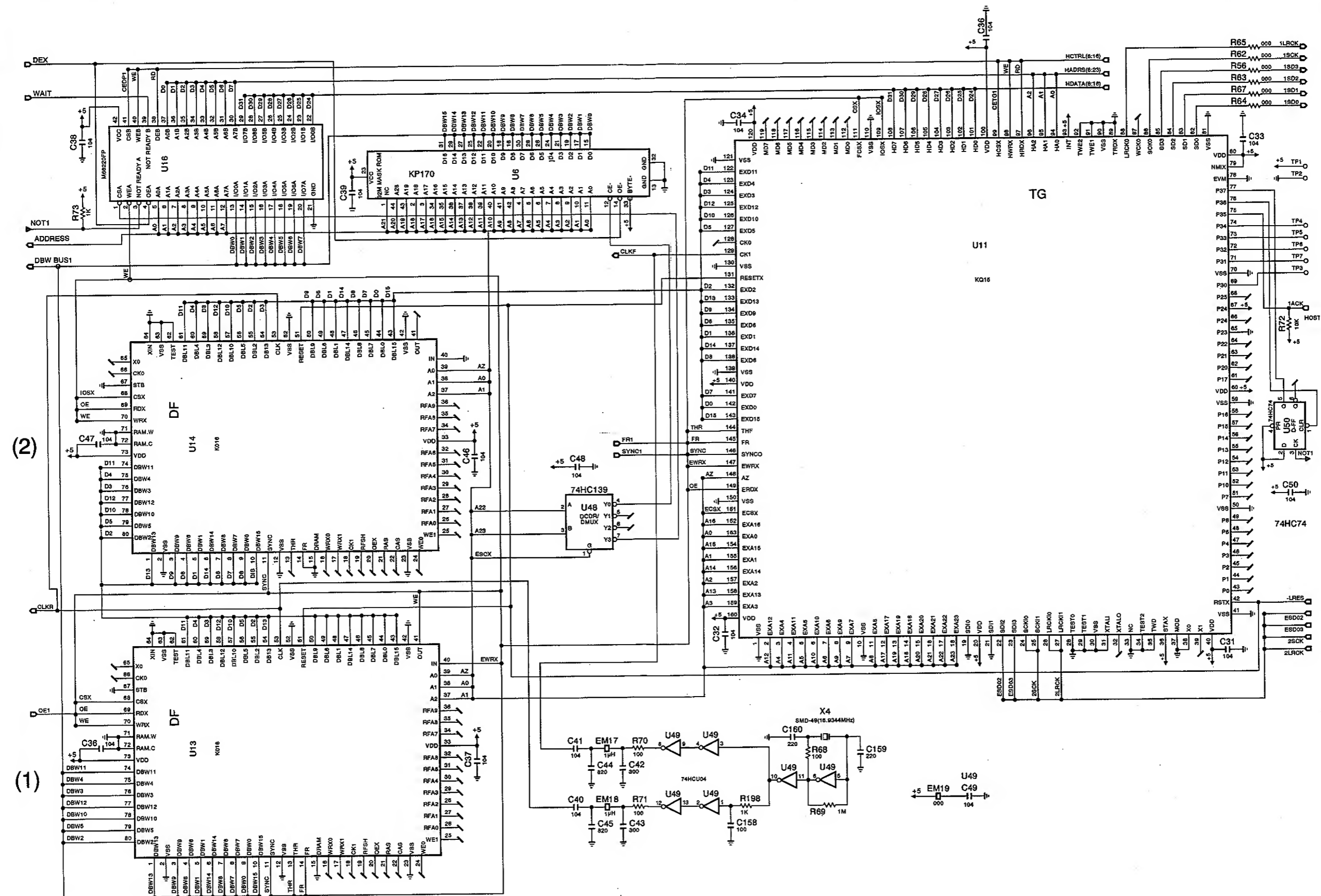
7



14. KMI-062(1),(2),(3) CIRCUIT (1/8)

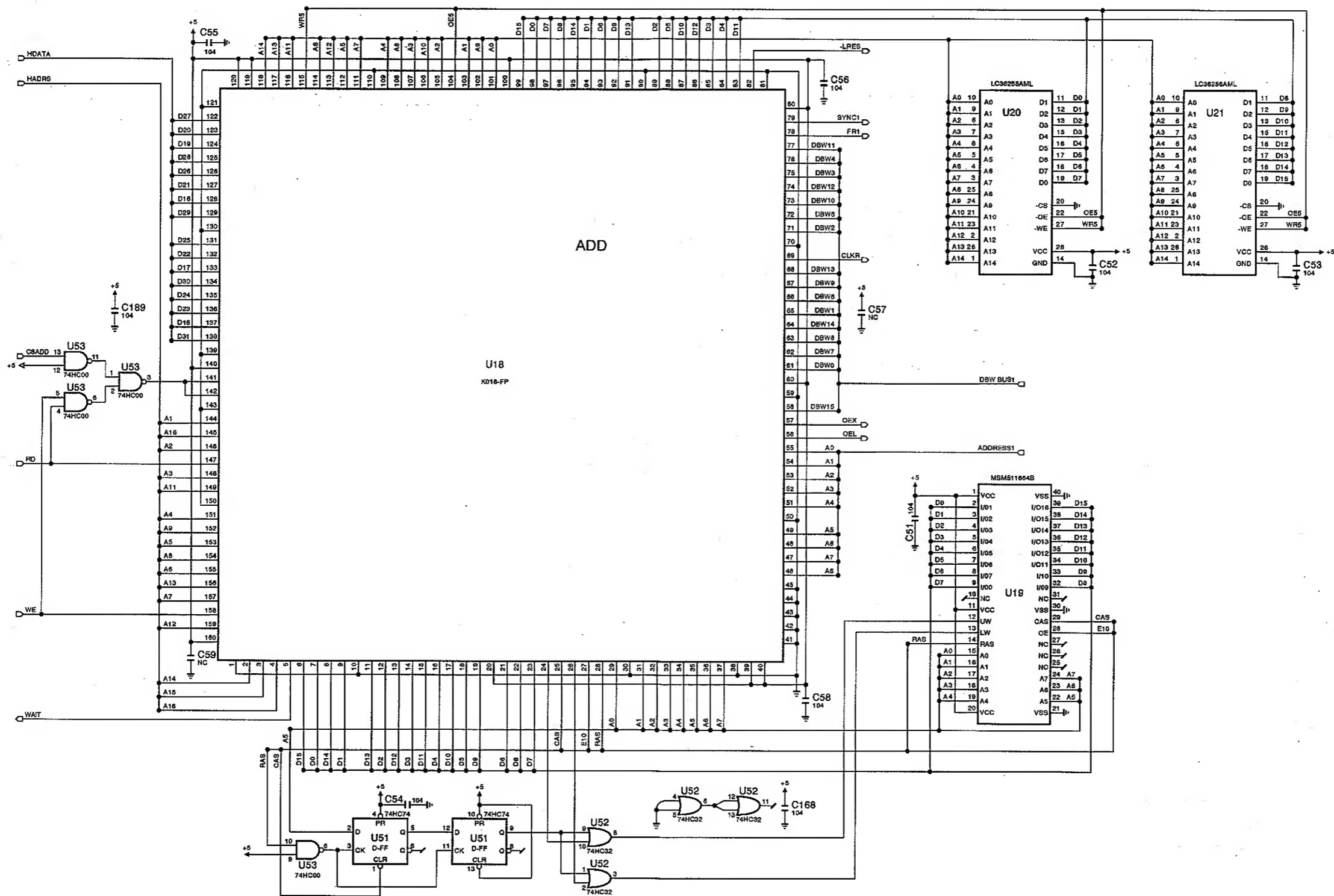


15. KMI-062(1),(2),(3) CIRCUIT (2/8)



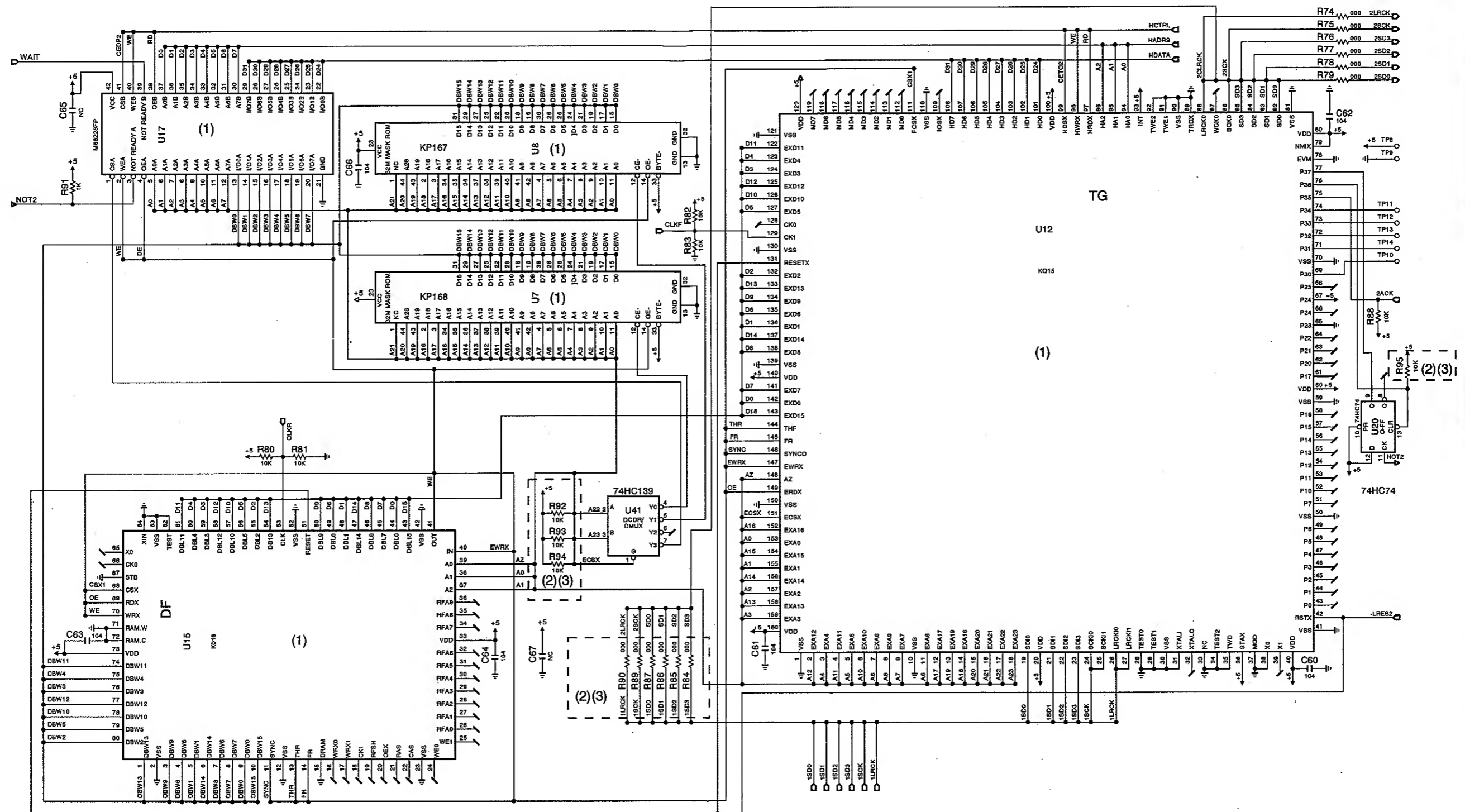
TG1

16. KMI-062(1),(2),(3) CIRCUIT (3/8)



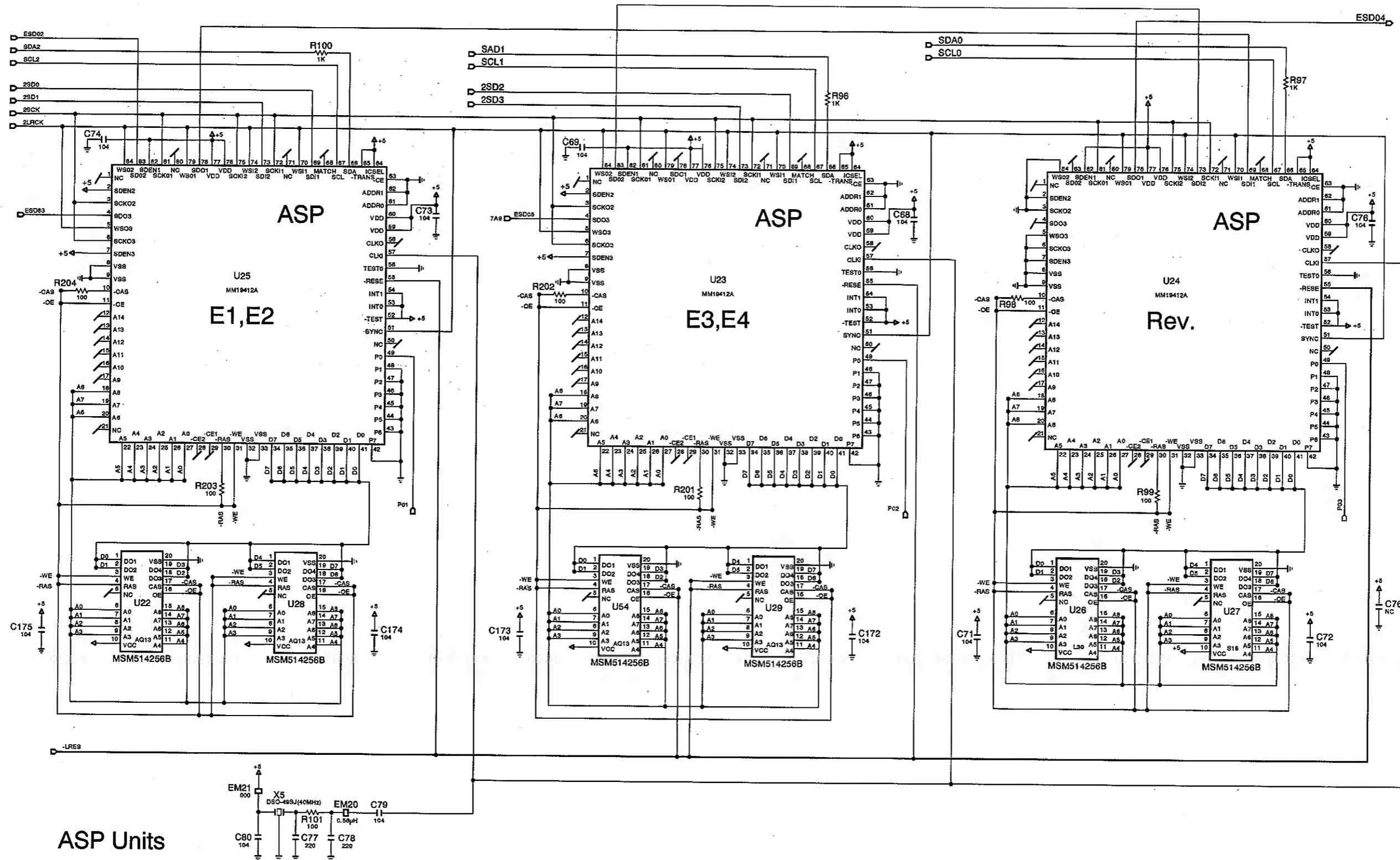
ADD

17. KMI-062(1),(2),(3) CIRCUIT (4/8)



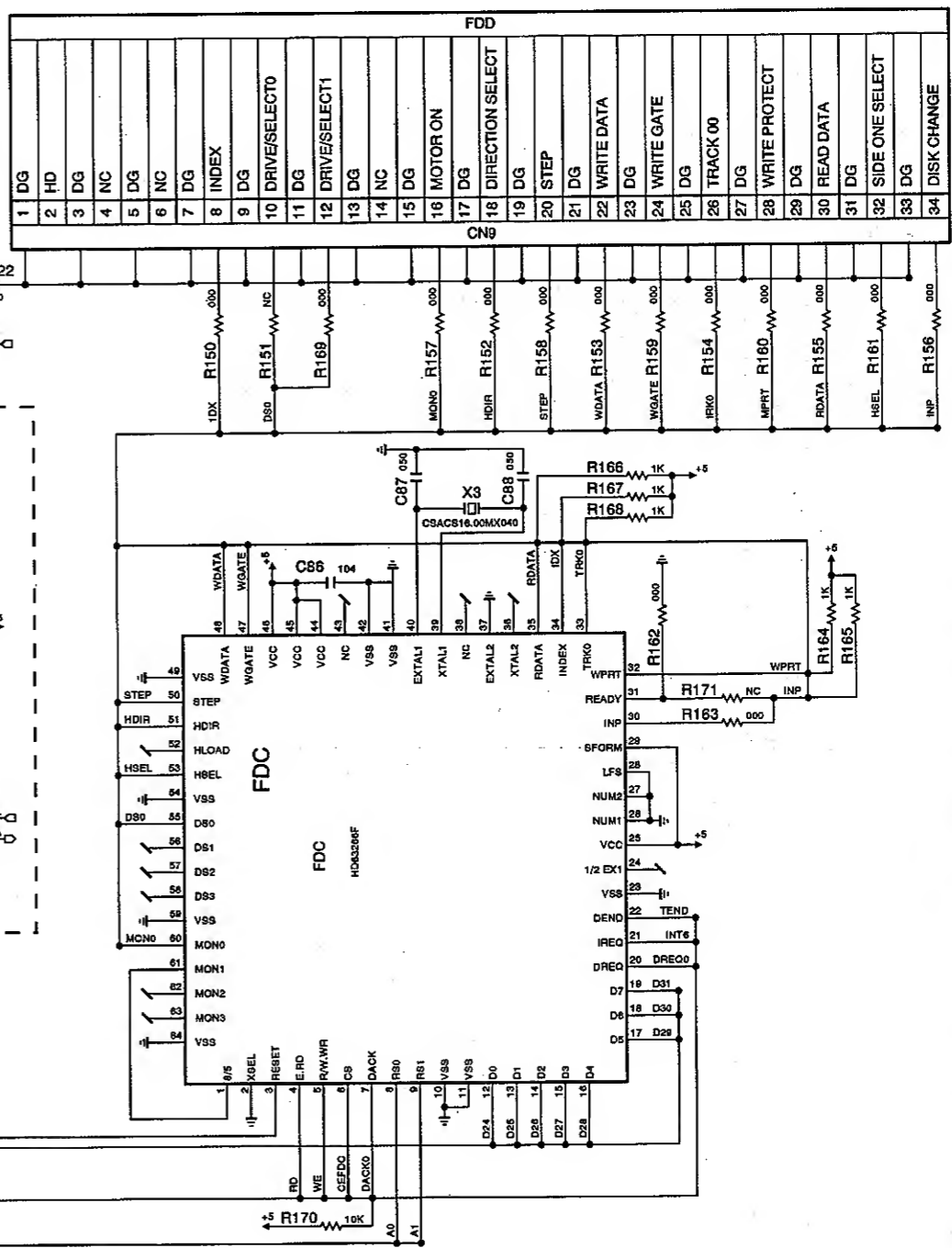
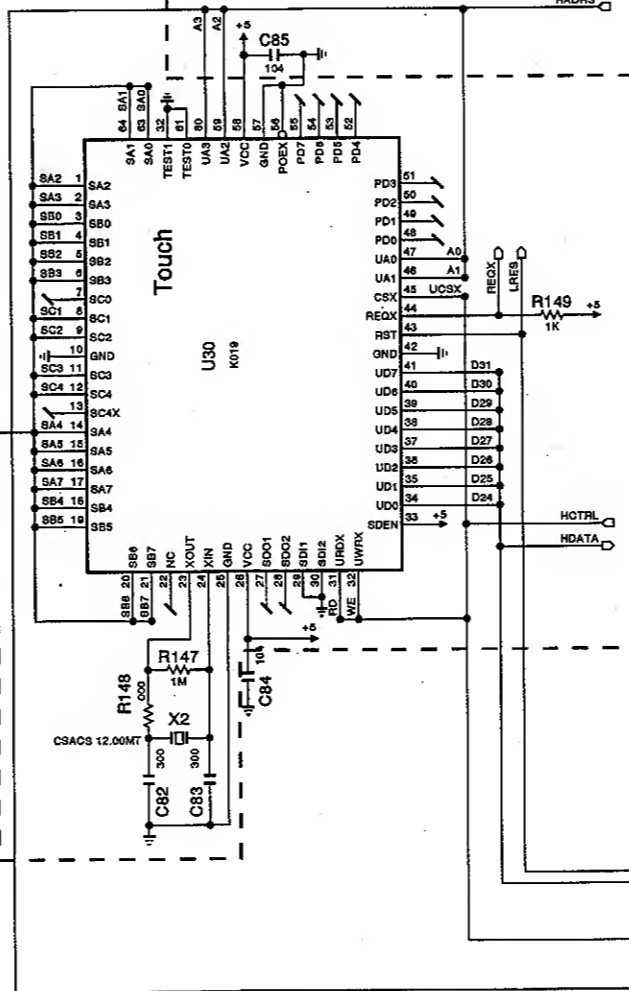
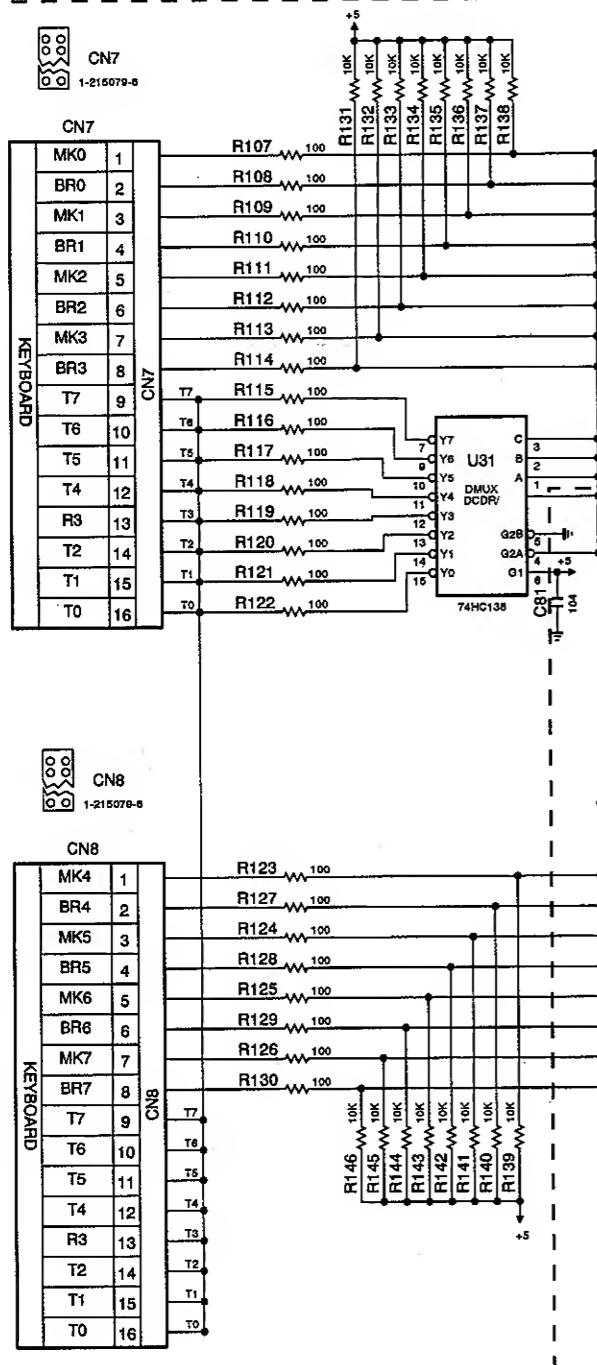
TG2

18. KMI-062(1),(2),(3) CIRCUIT (5/8)



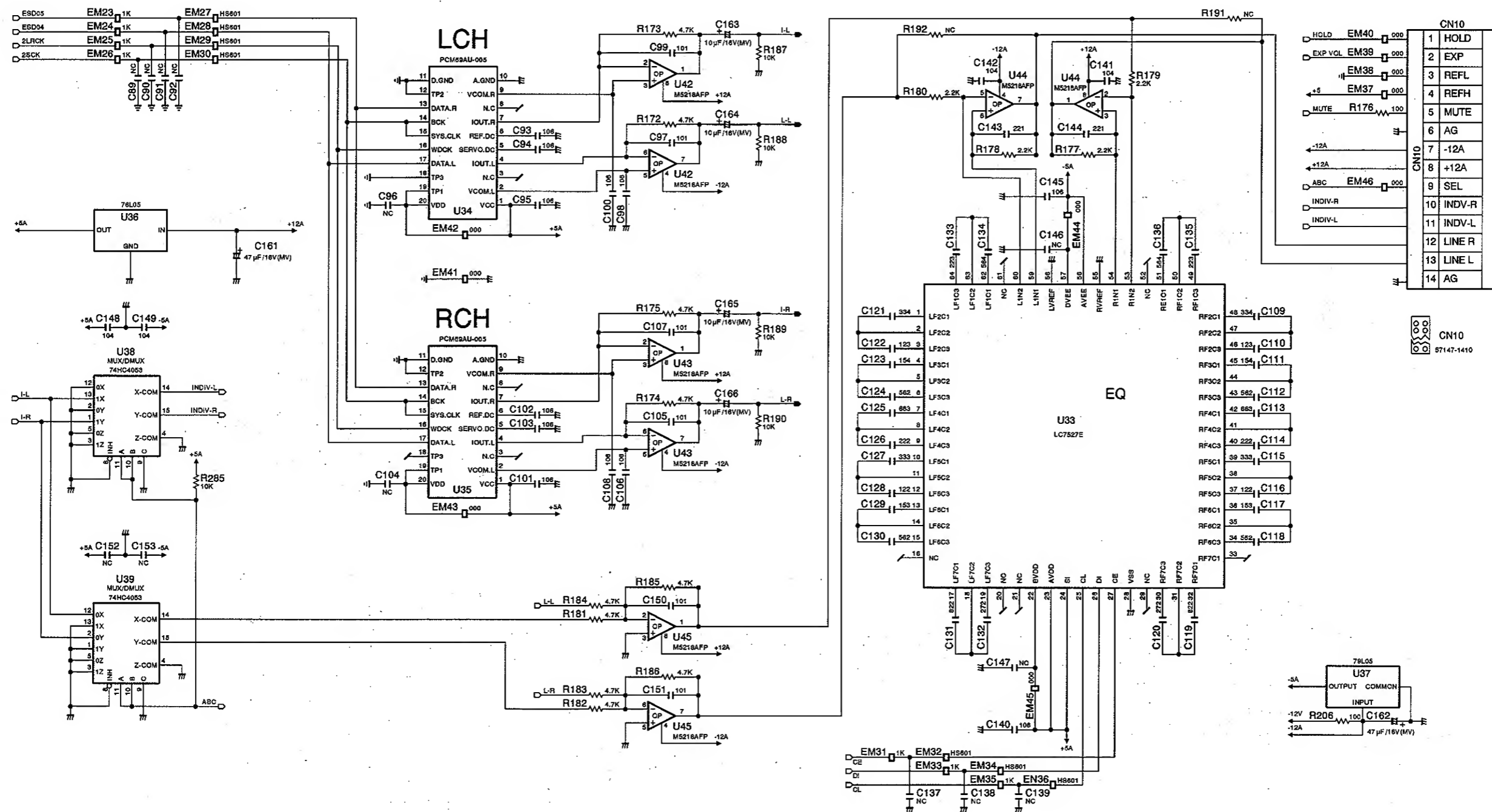
19. KMI-062(1),(2),(3) CIRCUIT (6/8)

(1)(2)



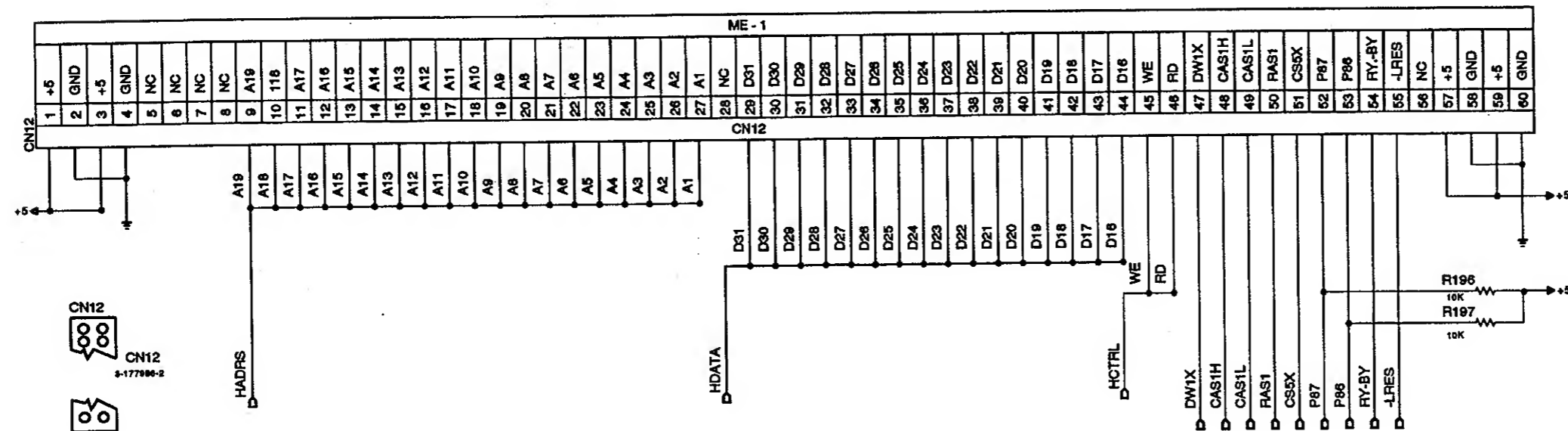
FDC

20. KMI-062(1),(2),(3) CIRCUIT (7/8)



ANALOG

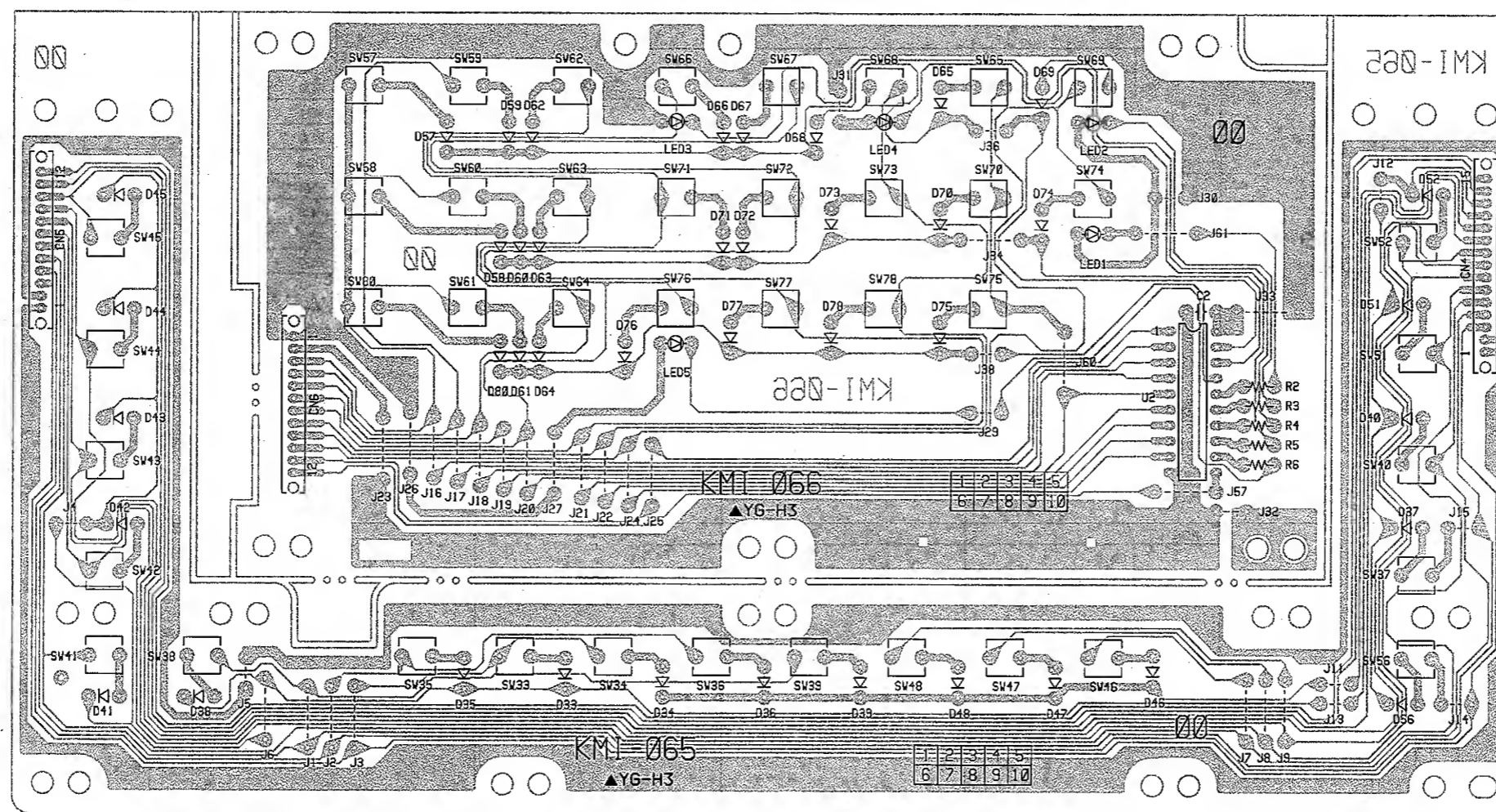
A	B	C	D	E	F	G	H	I
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22. KMI-065,066 PRINTED WIRING BOARDS(W type)

(KMI - 065)	
PLE1	12
POE	11
PD7	10
PD6	9
PD5	8
PD4	7
PD3	6
PD2	5
PD1	4
PD0	3
GND	2
+5	1

(KMI - 066)	
+5	1
GND	2
PD0	3
PD1	4
PD2	5
PD3	6
PD4	7
PD5	8
PD6	9
PD7	10
POE	11
PLE1	12



(KMI - 065)	
15	PLE1
14	POE
13	SC6
12	SC5
11	SC4
10	PD7
9	PD6
8	PD5
7	PD4
6	PD3
5	PD2
4	PD1
3	PD0
2	GND
1	+5D

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23. KMI-065 CIRCUIT(W type)

1

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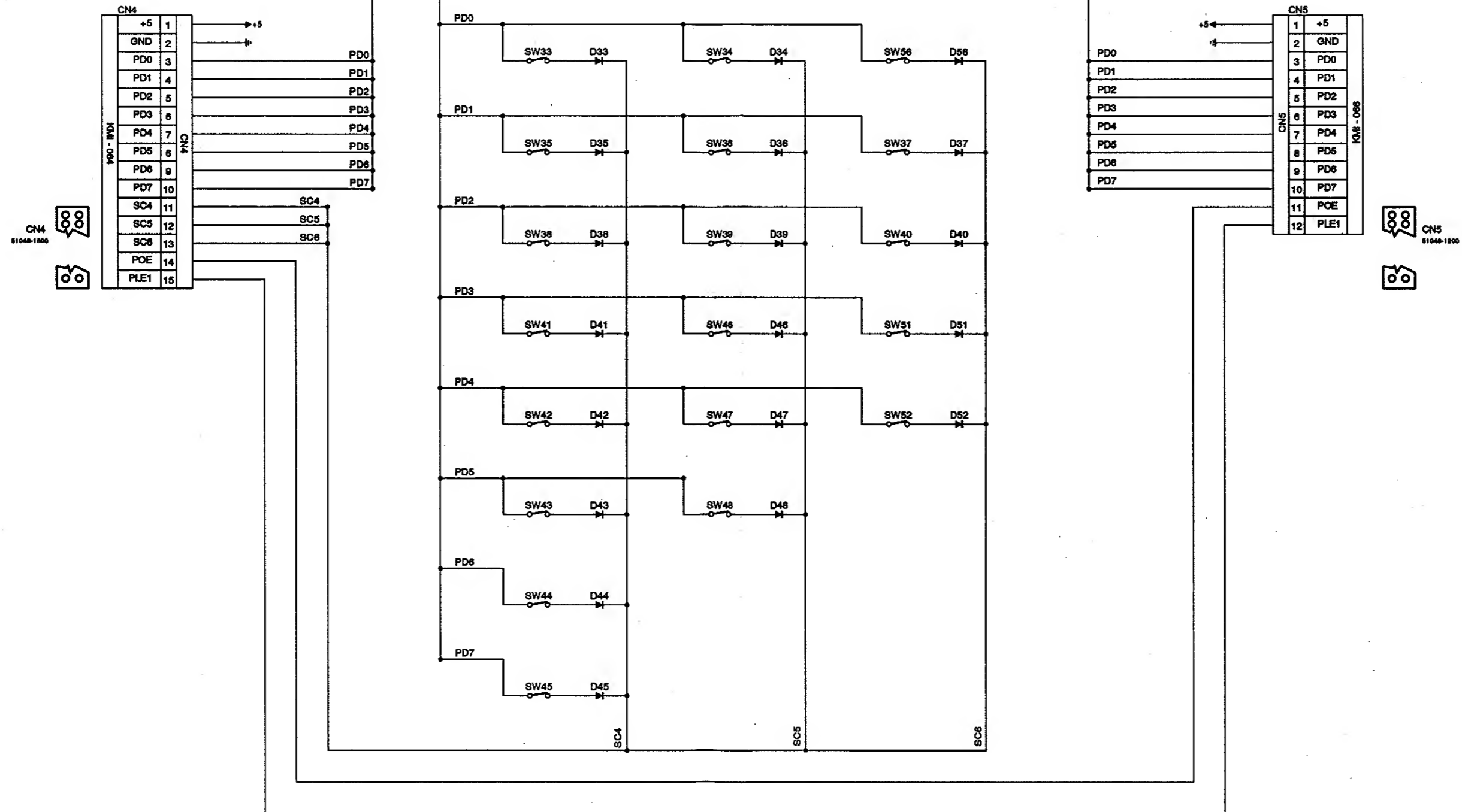
5

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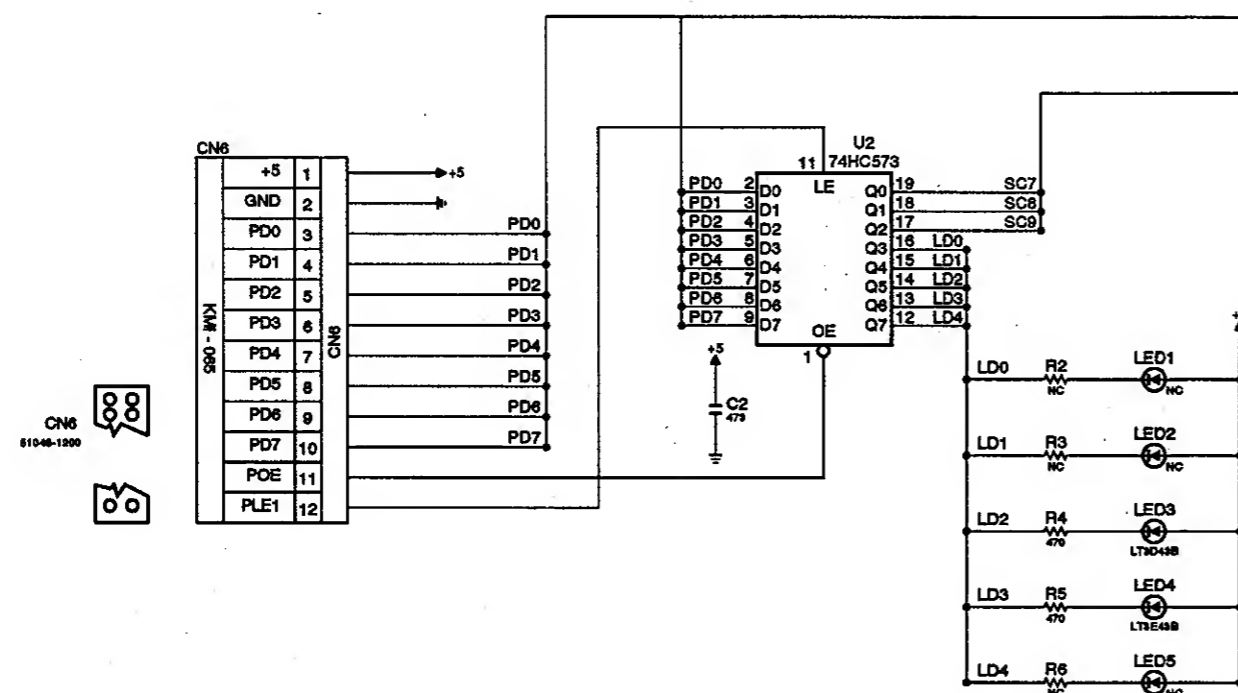
7



PANEL SW CENTER

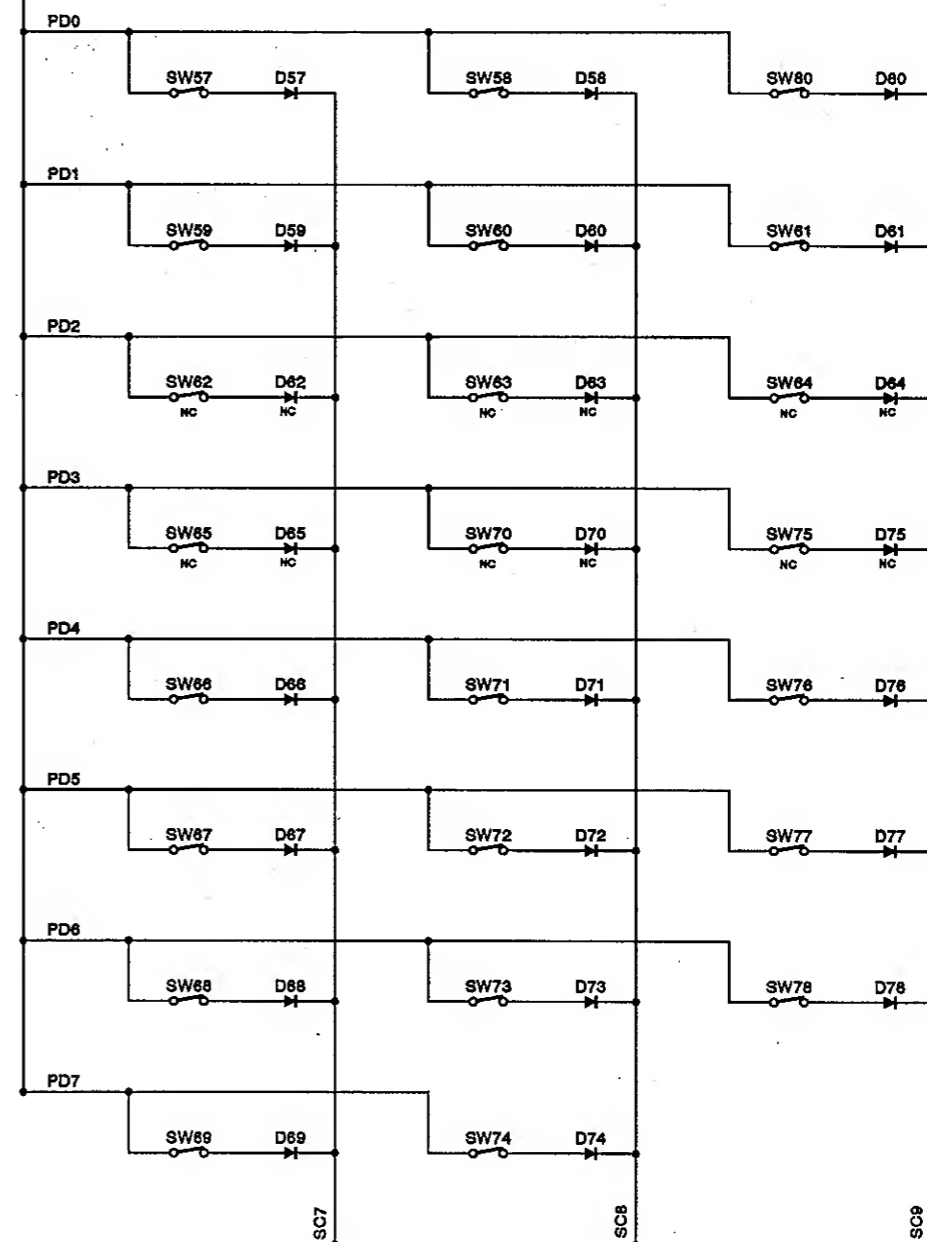
SW : SOR-123HS
D : 1SS270

24. KMI-066 CIRCUIT(W type)



SW : SOR-123HS
D : 1SS270

PANEL SW LEFT



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25. KMI-064,067~070 PRINTED WIRING BOARDS(W type)

(KMI - 068)

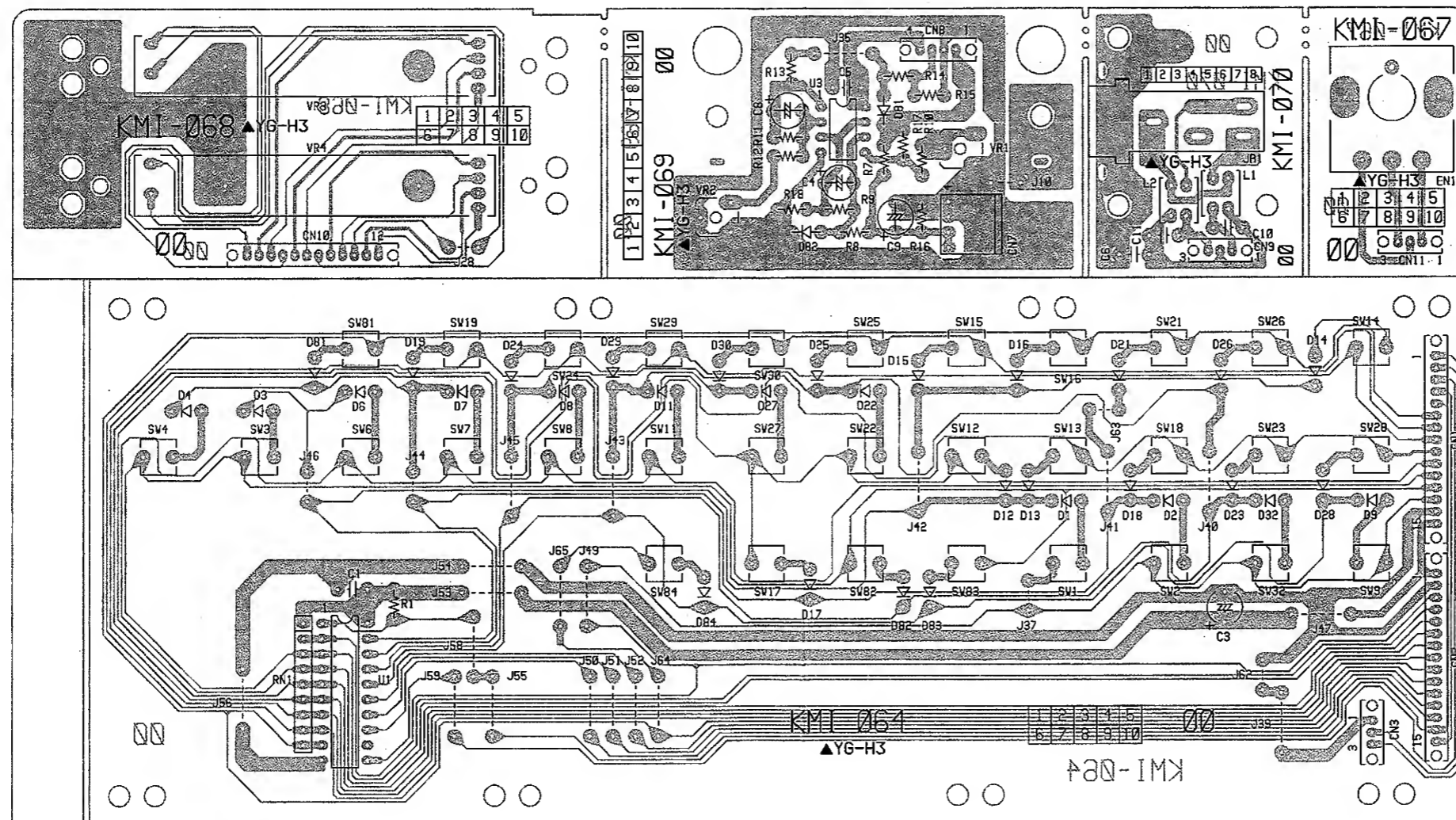
KMI - 079											
IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS	IRS
1	2	3	4	5	6	7	8	9	10	11	12
CN10											

(KMI - 069)

KMI - 062				KEYBOARD			
GND	1	GND	2	GND	3	GND	4
12A	1	12A	2	12A	3	12A	4
CN8				CN7			

(KMI - 070)

KMI - 079		
HPL	GND	HPL
3	2	1
CN9		



(KMI - 079)

CN11		
1	2	3
BINO	AINO	GND
KMI - 064		

(KMI - 064)

CN1		KMI - 062	
1	BINO	1	BINO
2	AINO	2	AINO
3	PLE2	3	PLE2
4	PLE1	4	PLE1
5	POE	5	POE
6	PD7	6	PD7
7	PD6	7	PD6
8	PD5	8	PD5
9	PD4	9	PD4
10	PD3	10	PD3
11	PD2	11	PD2
12	PD1	12	PD1
13	PD0	13	PD0
14	GND	14	GND
15	+5	15	+5

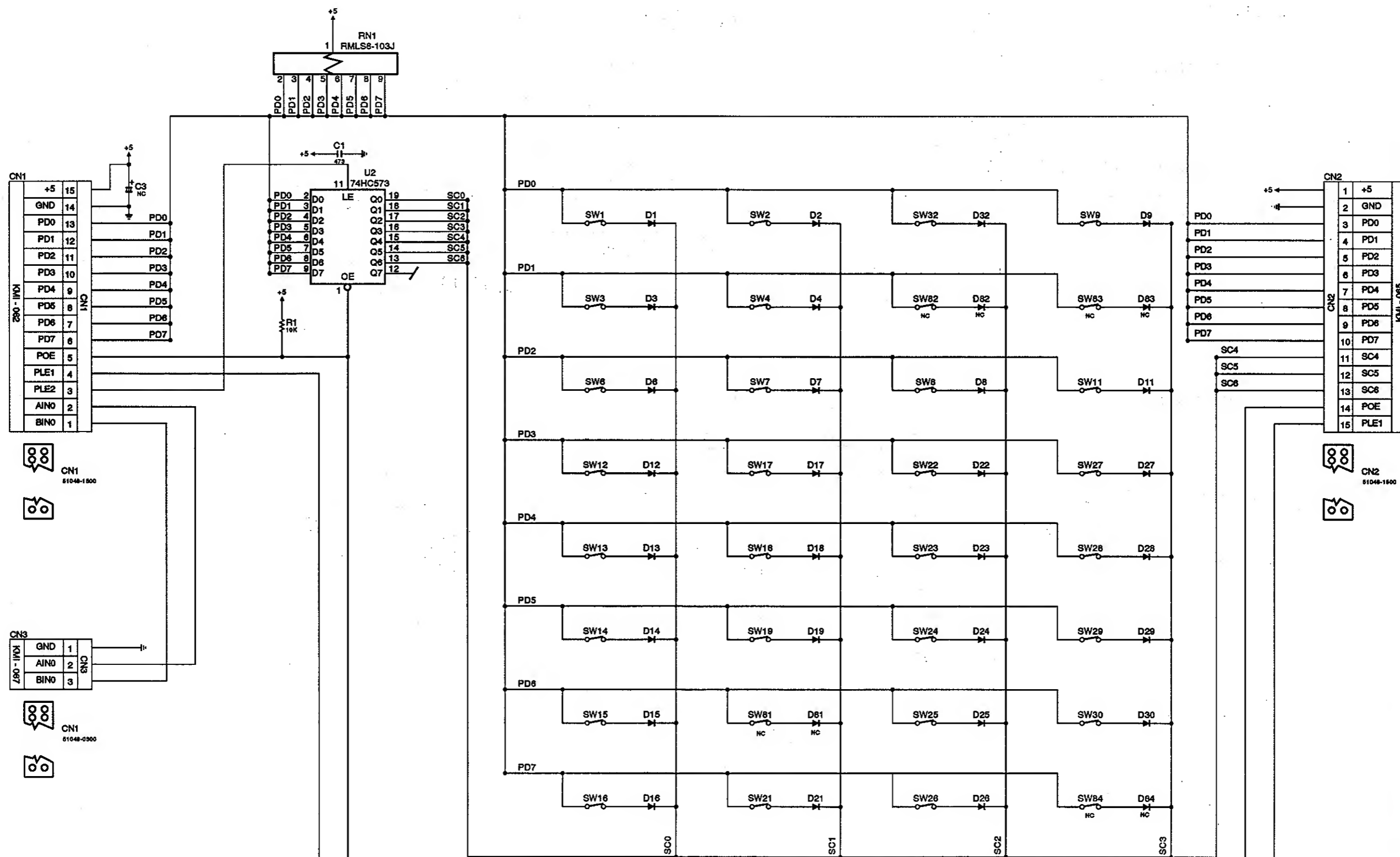
(KMI - 064)

CN2		KMI - 065	
1	+5	1	+5
2	GND	2	GND
3	PD0	3	PD0
4	PD1	4	PD1
5	PD2	5	PD2
6	PD3	6	PD3
7	PD4	7	PD4
8	PD5	8	PD5
9	PD6	9	PD6
10	PD7	10	PD7
11	SC4	11	SC4
12	SC5	12	SC5
13	SC6	13	SC6
14	POE	14	POE
15	PLE2	15	PLE2

(KMI - 064)

CN3		KMI - 067	
1	GND	1	GND
2	AINO	2	AINO
3	BINO	3	BINO

26. KMI-064 CIRCUIT (W type)

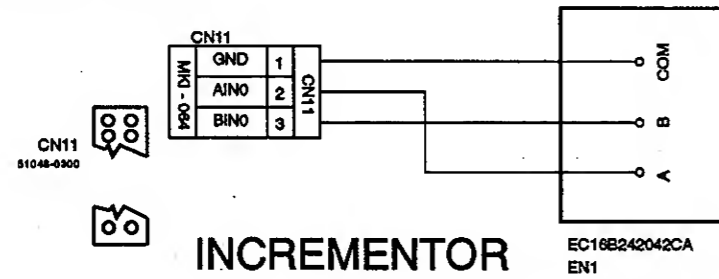


PANEL SW RIGHT

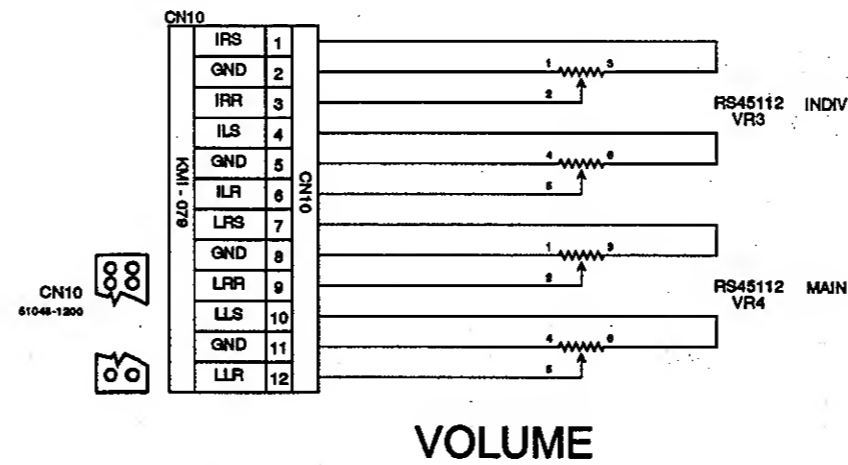
SW : SOR-123HS
D : 1SS270

27. KMI-067~070 CIRCUITS (W type)

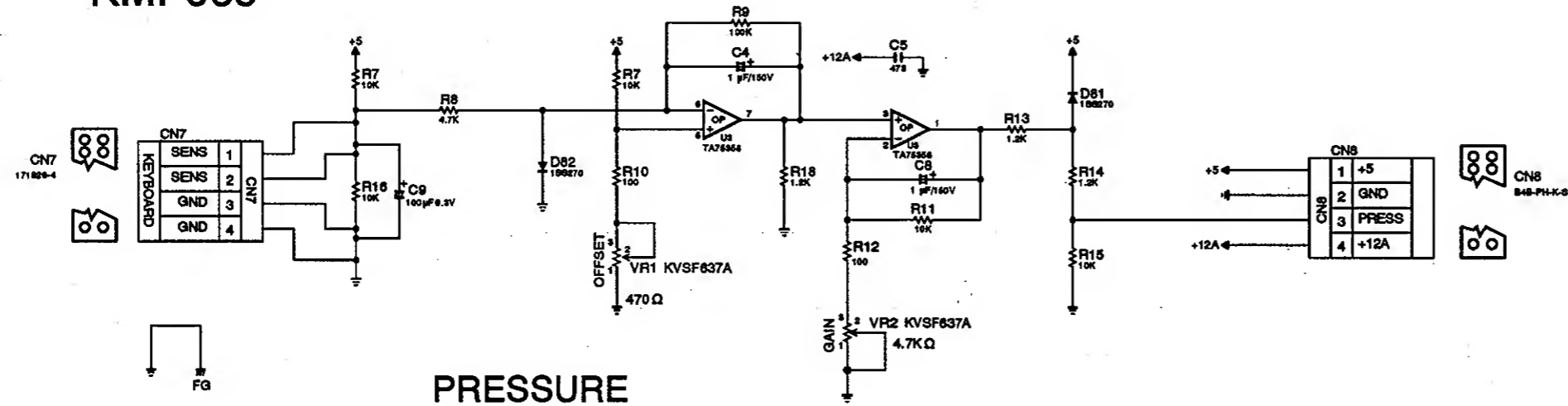
KMI-067



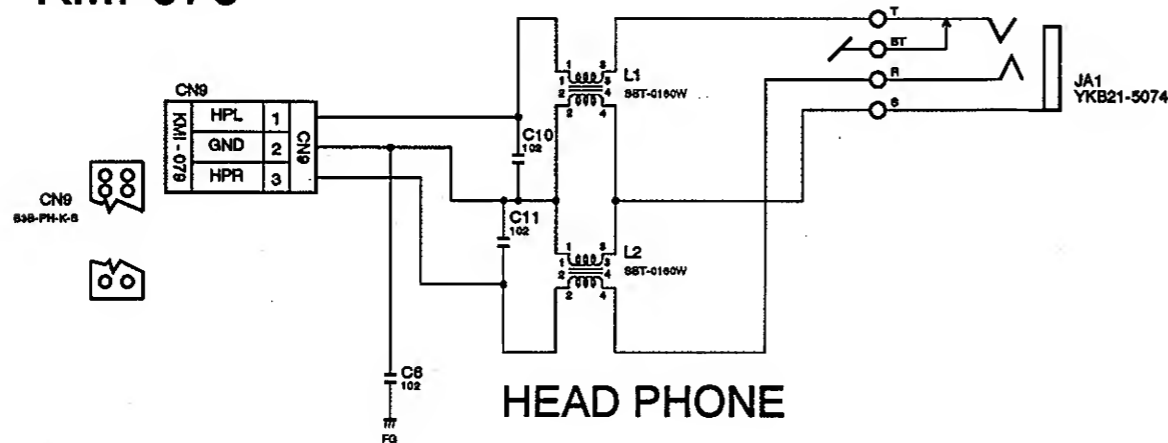
KMI-068



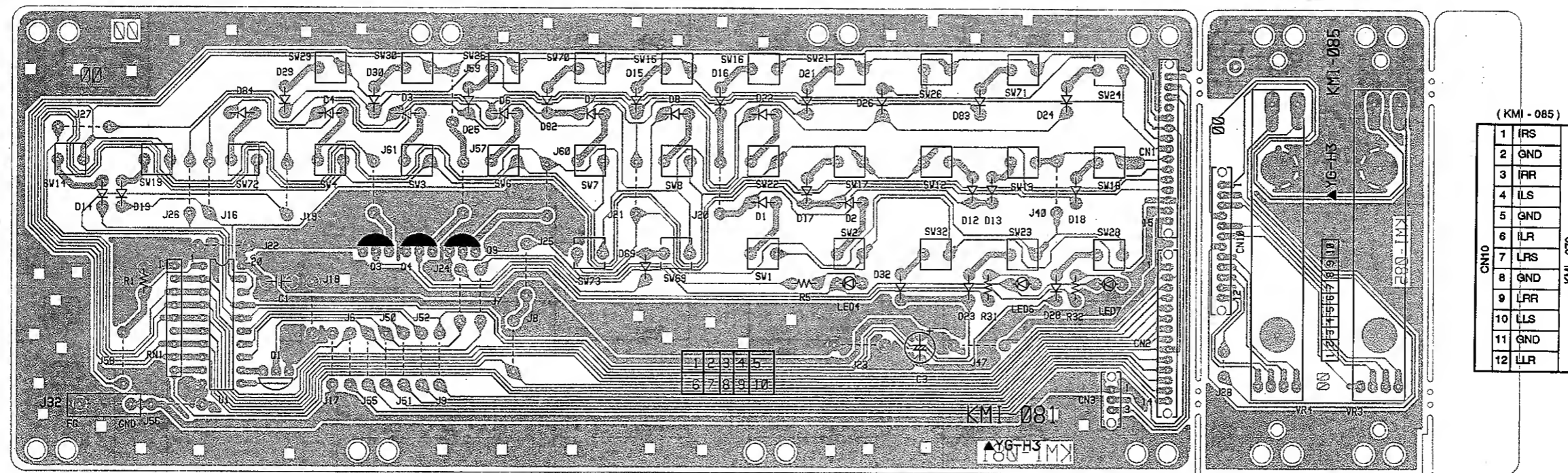
KMI-069



KMI-070



28. KMI-081,085 PRINTED WIRING BOARDS(S type)



(KMI - 085)	
1	IRS
2	GND
3	IRR
4	ILS
5	GND
6	ILR
7	LRS
8	GND
9	LRR
10	LLS
11	GND
12	LLR

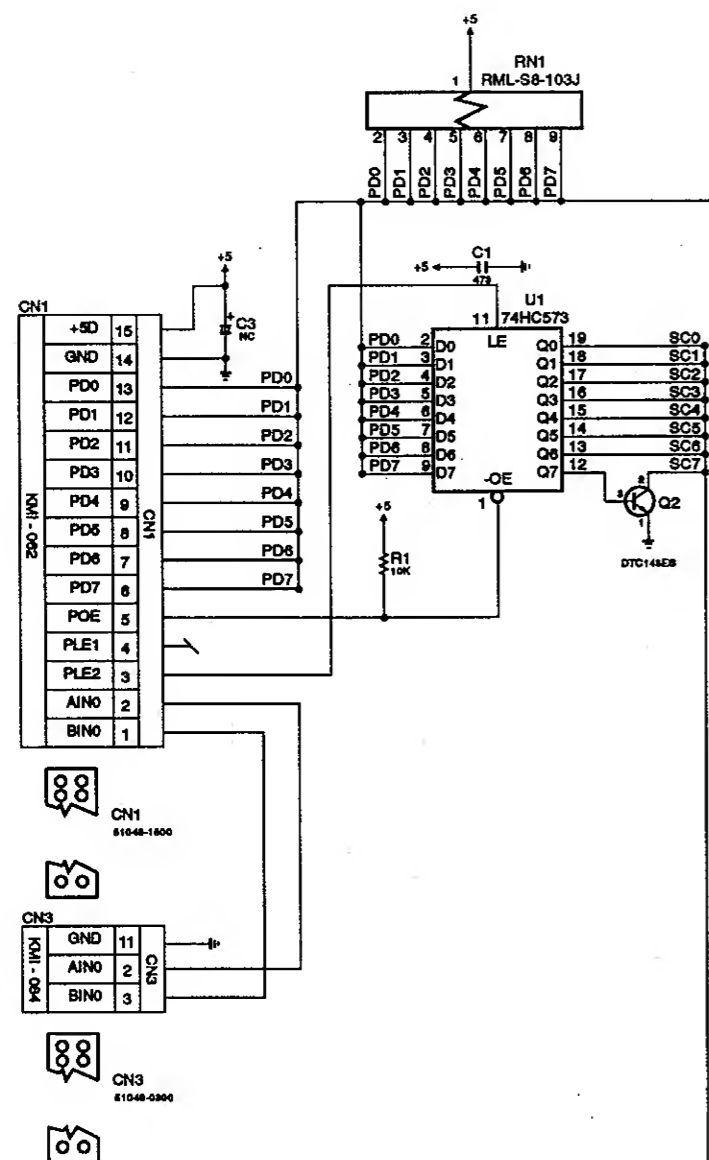
(KMI - 081)	
1	GND
2	BINO
3	AINO

(KMI - 081)	
1	BINO
2	AINO
3	PLE2
4	PLE1
5	POE
6	PD7
7	PD6
8	PD5
9	PD4
10	PD3
11	PD2
12	PD1
13	PD0
14	GND
15	+5

(KMI - 081)	
1	+5
2	PD0
3	PD1
4	PD2
5	PD3
6	PD4
7	PD5
8	PD6
9	PD7
10	SC3
11	SC4
12	SC5
13	SC6
14	SC7

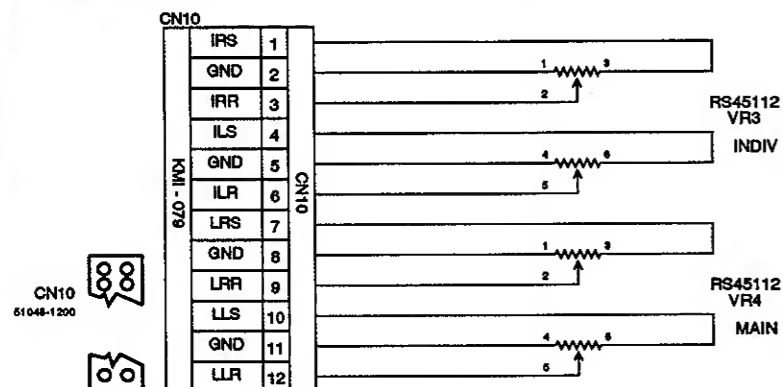
29. KMI-081,085 CIRCUITS(S type)

KMI-081

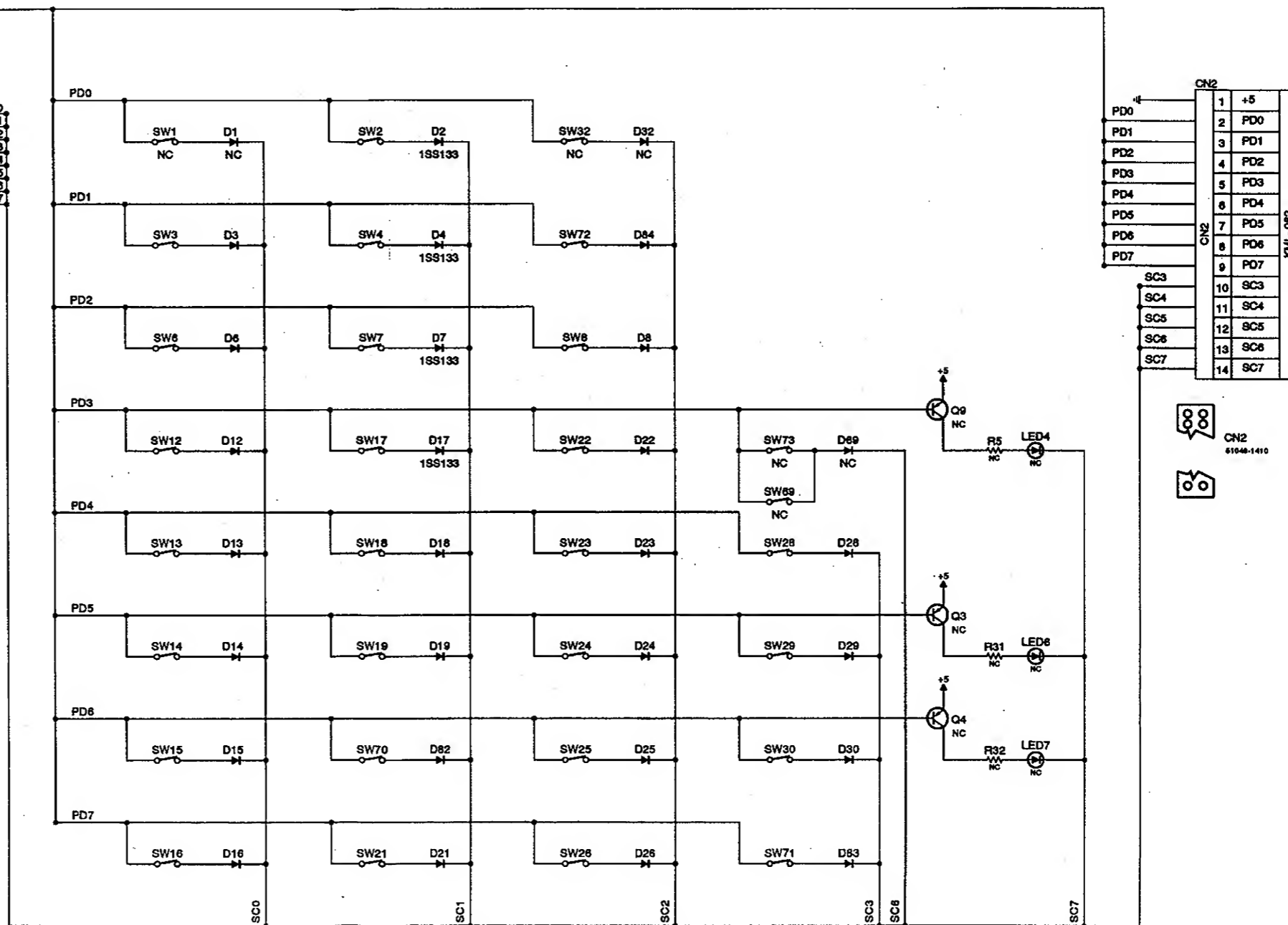


KMI-085

VOLUME



PANEL SW RIGHT



SW : SOR-123HS
D : 1SS270

A B C D E F G H I

30. KMI-082~084,086~089 PRINTED WIRING BOARDS(S type)

(KMI - 088)

KMI - 078	CN12	
	GND	1
	+5	2
	FS1	3
	FS2	4

(KMI - 084)

KMI - 081		
GND	AIN0	BIN0
3	2	1
CN11		

(KMI - 087)

KMI - 078	CN8	
	HPR	1
	GND	2
	HPL	3

(KMI - 082)

KMI - 083	CN13	
	PD0	1
	PD1	2
	PD2	3
	SC6	4
	+5	5
	SC7	6

(KMI - 083)

CN14	KMI - 082	
	1	PD0
	2	PD1
	3	PD2
	4	SC6
	5	+5
	6	SC7

CN4	KMI - 081	
	14	SC7
	13	SC6
	12	SC5
	11	SC4
	10	SC3
	9	PD7
	8	PD6
	7	PD5
	6	PD4
	5	PD3
	4	PD2
	3	PD1
	2	PD0
	1	+5

(KMI - 085)

CN7			CN6		
1	2	3	1	2	3
+5	VR1	GND	+5	VR2	GND
MODE			PATTERN		

(KMI - 089)

CN15									
1	2	3	4	5	6	7	8	9	10
GND	AN7	AN6	AN5	AN4	PAR2	PAR1	PAR0	+5D	GND
KMI - 062									

(KMI - 089)

CN8	1	+5
	2	GND
	3	PRESS
	4	+12A

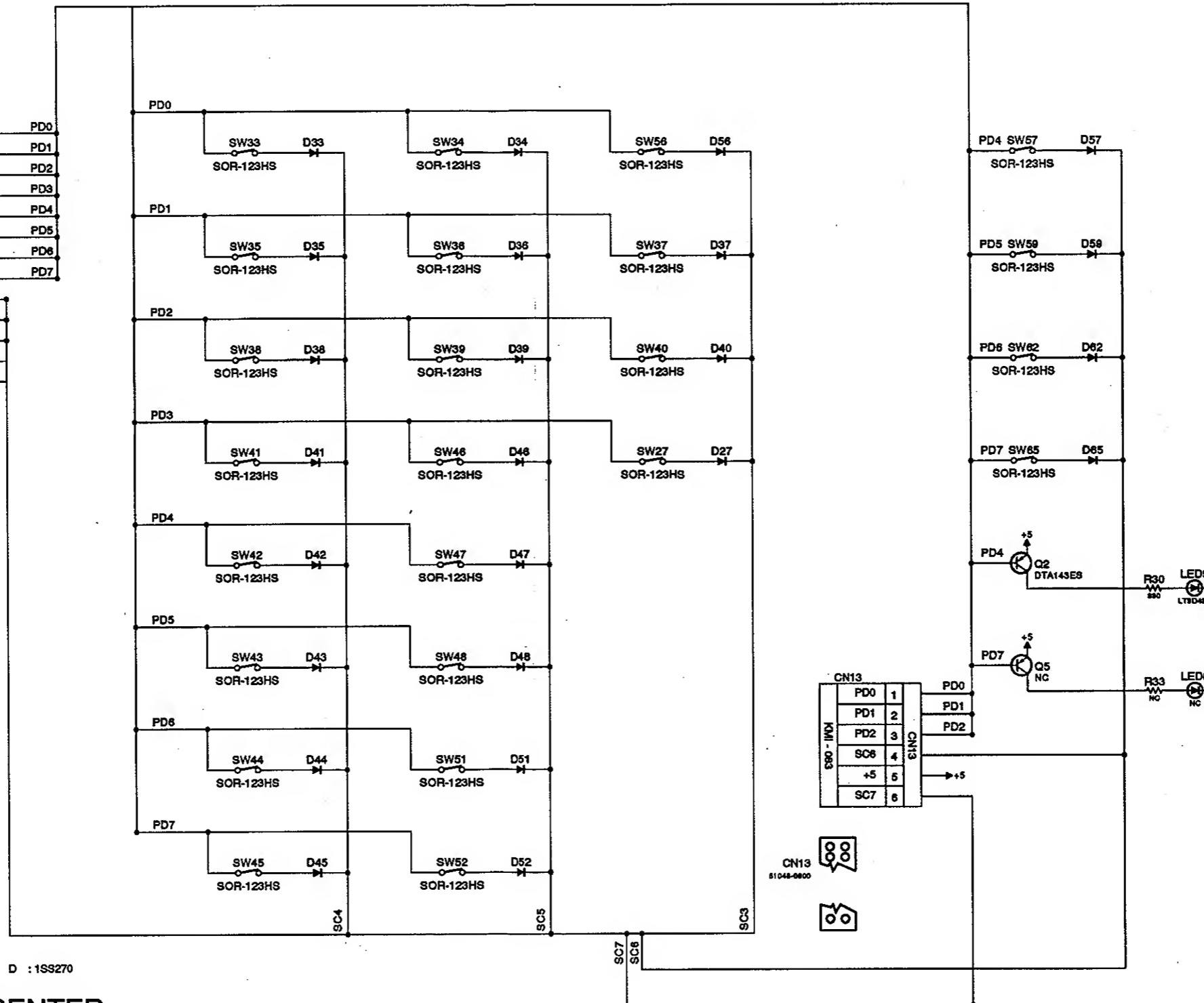
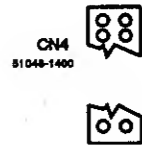
(KMI - 086)

CN7			
4	3	2	1
GND	GND	SENS	SENS
KEYBOARD			

(KMI - 086)

31. KMI-082 CIRCUIT(S type)

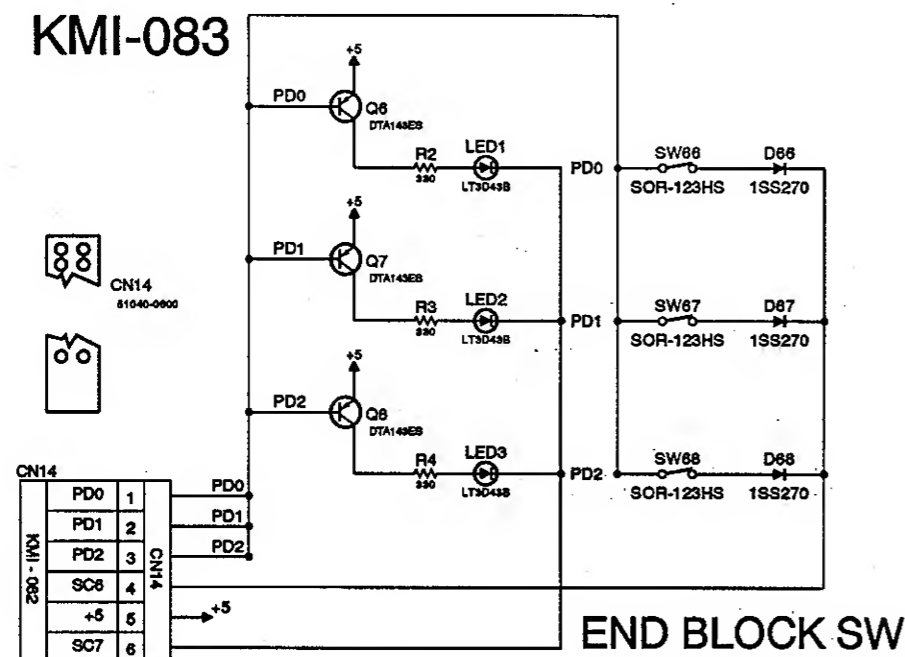
CN4		
+5	1	
PD0	2	
PD1	3	
PD2	4	
PD3	5	
PD4	6	
PD5	7	
PD6	8	
PD7	9	
SC3	10	
SC4	11	
SC5	12	
SC6	13	
SC7	14	



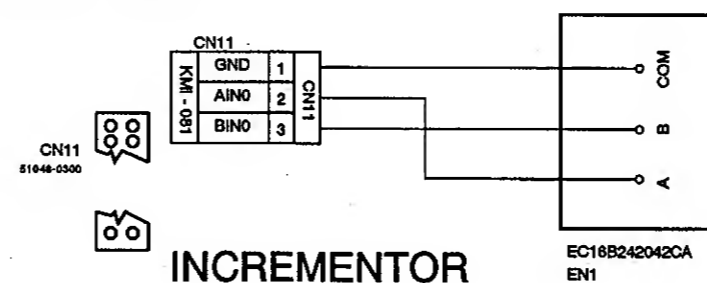
PANEL SW CENTER

32. KMI-083,084,086~088 CIRCUITS(S type)

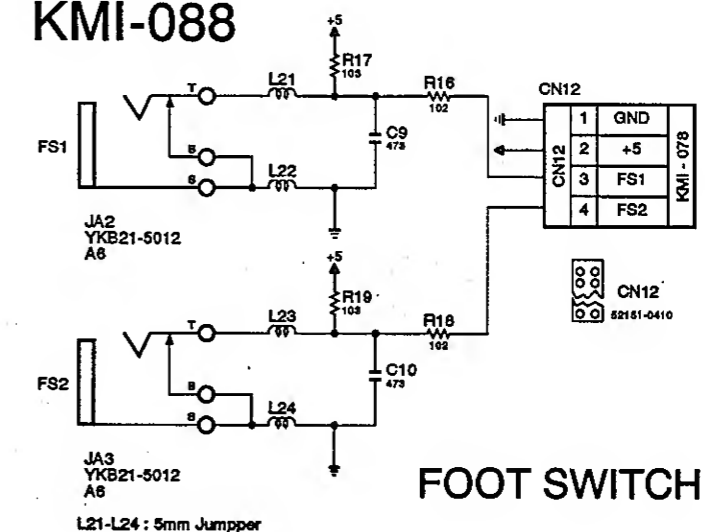
KMI-083



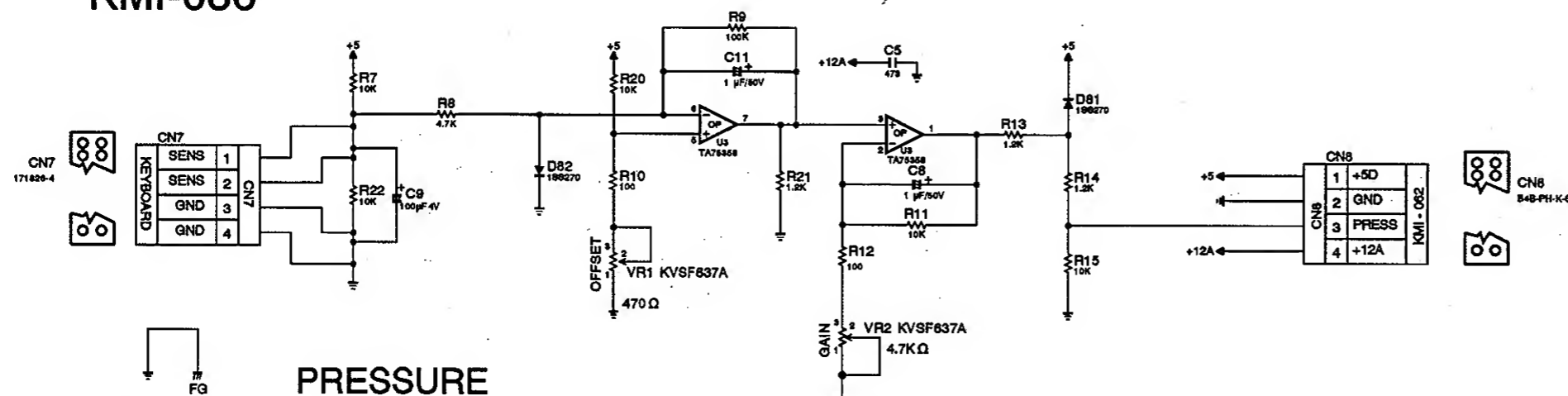
KMI-084



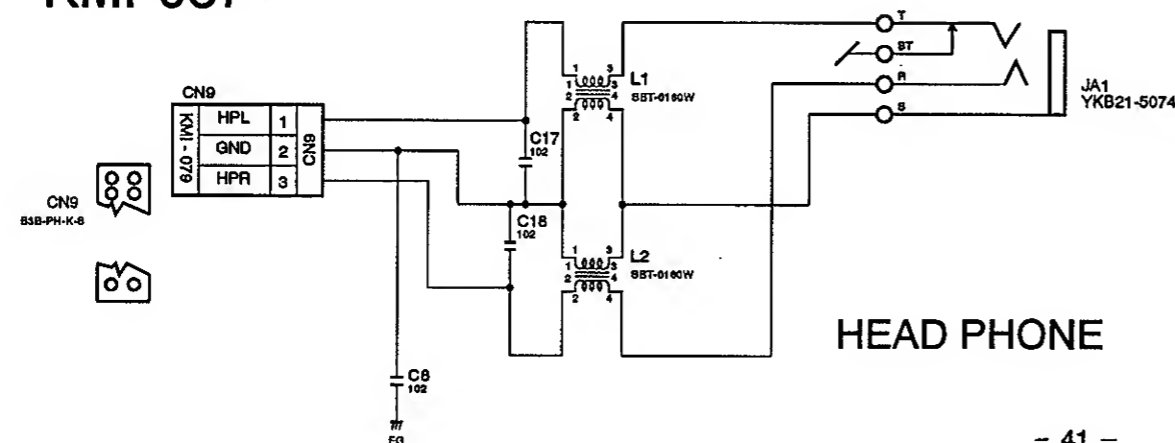
KMI-088



KMI-086



KMI-087

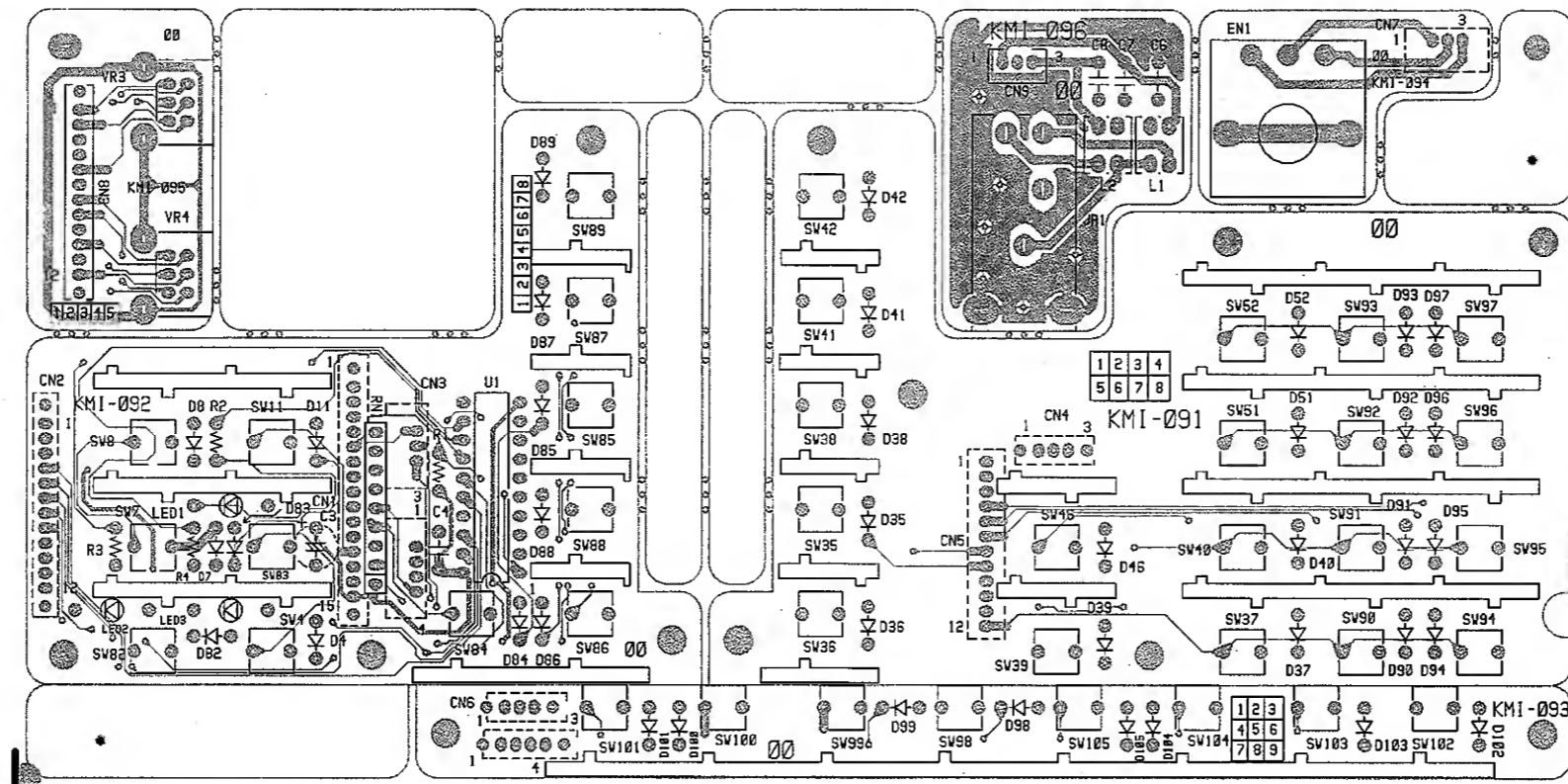


KMI-089



7

KMI - 079		
HPL	GND	HPR
3	2	1
CN9		



A

B

C

D

E

F

G

H

I

1

35. KMI-091~096 PRINTED WIRING BOARDS(R type)(Solder side)

1

2

2

3

3

4

4

5

5

6

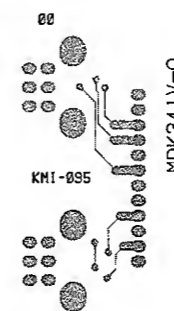
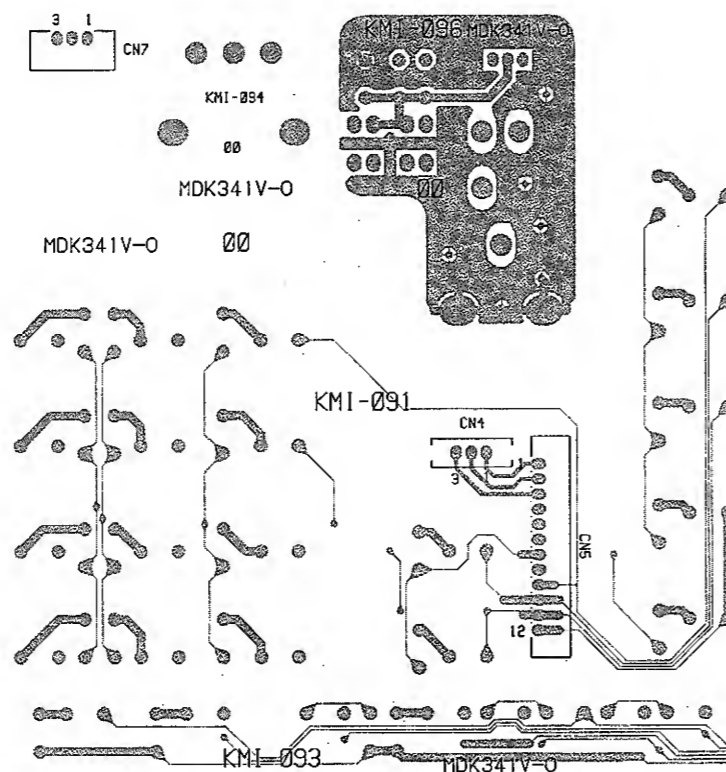
6

7

7

CN7		
3	2	1
BIN0	AIN0	GND

KMI - 091
(KMI - 094)



(KMI - 092)	
1	BIN0
2	AIN0
3	PLE2
4	PLE1
5	POE
6	PD7
7	PD6
8	PD5
9	PD4
10	PD3
11	PD2
12	PD1
13	PD0
14	GND
15	+5D

(KMI - 092)	
1	BIN0
2	AIN0
3	GND
4	SC4
5	SC3
6	SC2
7	SC1
8	SC0
9	PD7
10	PD6
11	PD5
12	PD3

CN4		
3	2	1
GND	AIN0	BIN0

KMI - 094
(KMI - 091)

BIN0		1
AIN0		2
GND		3
SC4		4
SC3		5
SC2		6
SC1		7
SC0		8
PD7		9
PD6		10
PD5		11
PD4		12

KMI - 092
(KMI - 091)

CN8		
3	2	1
PD0	PD1	PD2

KMI - 092
(KMI - 093)

CN12			
4	3	2	1
PD0	SC3	SC4	NC

KMI - 092
(KMI - 093)

CN11	
1	NC
2	SC4
3	SC3
4	PD3

(KMI - 092)
KMI - 093

CN3	
1	PD2
2	PD1
3	PD0

(KMI - 092)
KMI - 093

7



A

B

C

D

E

F

G

H

I

1

37. KMI-091 CIRCUIT(R type)

1

2

2

3

3

4

4

5

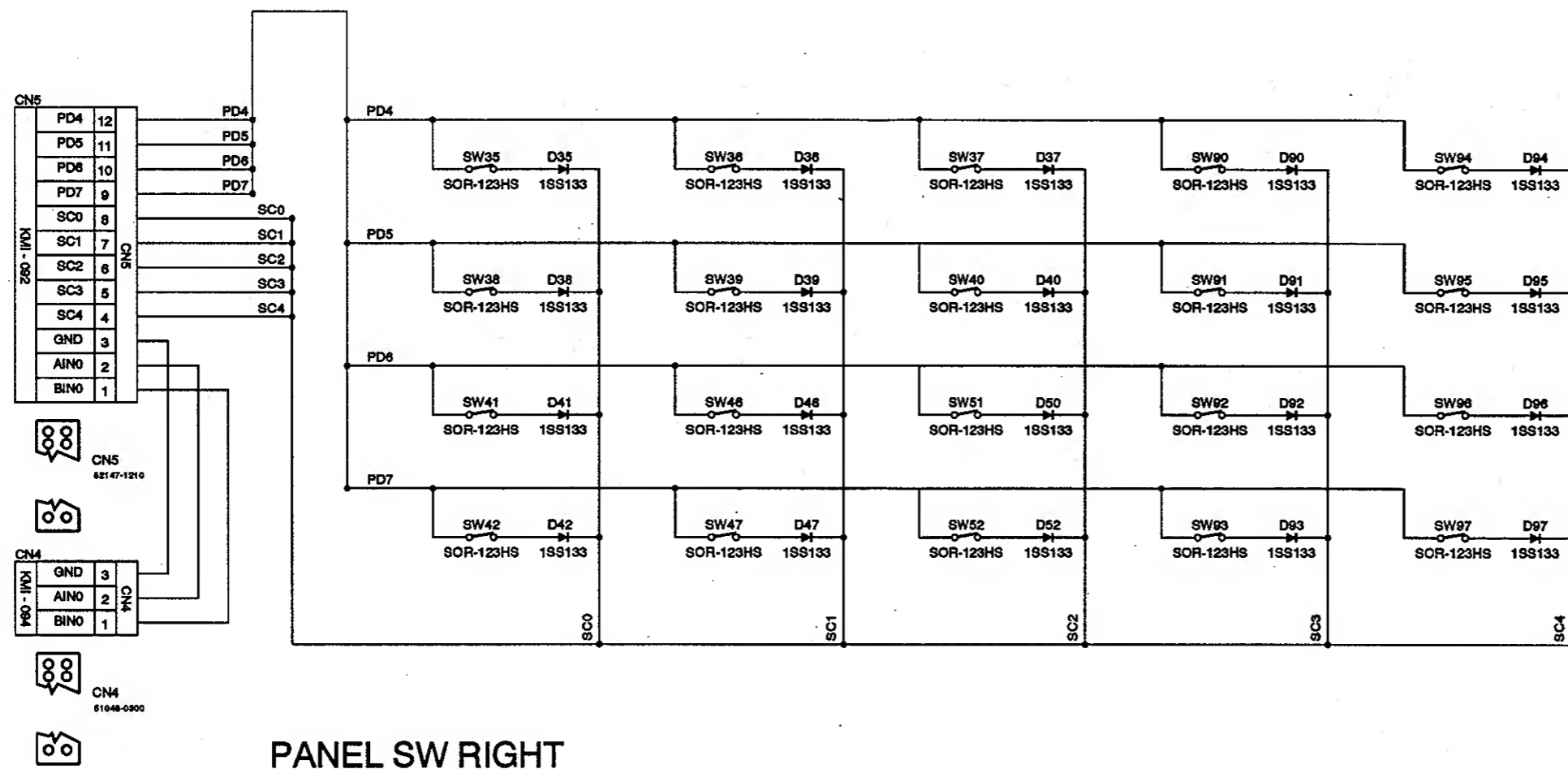
5

6

6

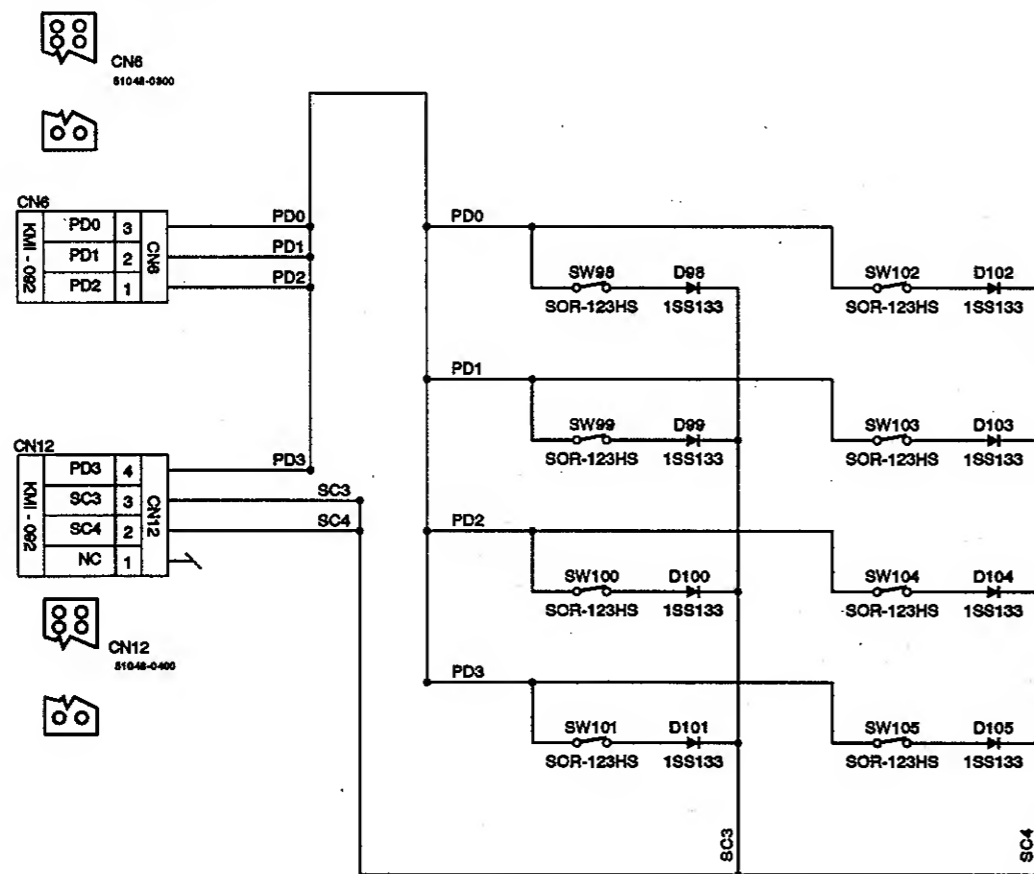
7

7



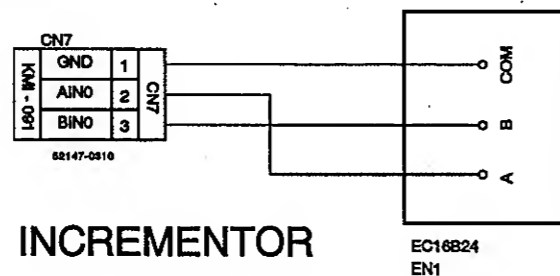
38. KMI-093~096 CIRCUITS(R type)

KMI-093



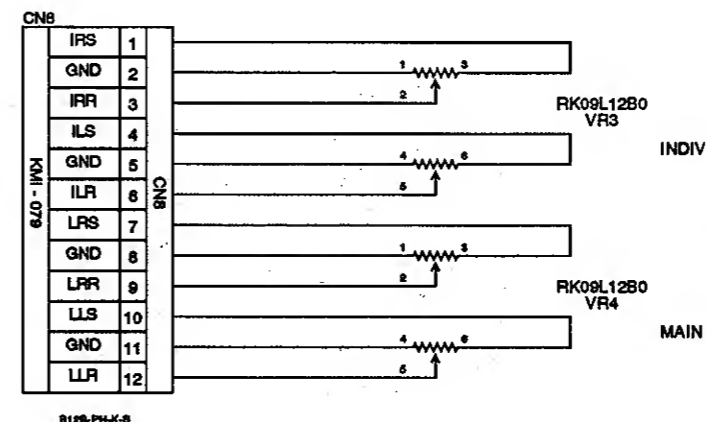
PANEL SW CENTER

KMI-094



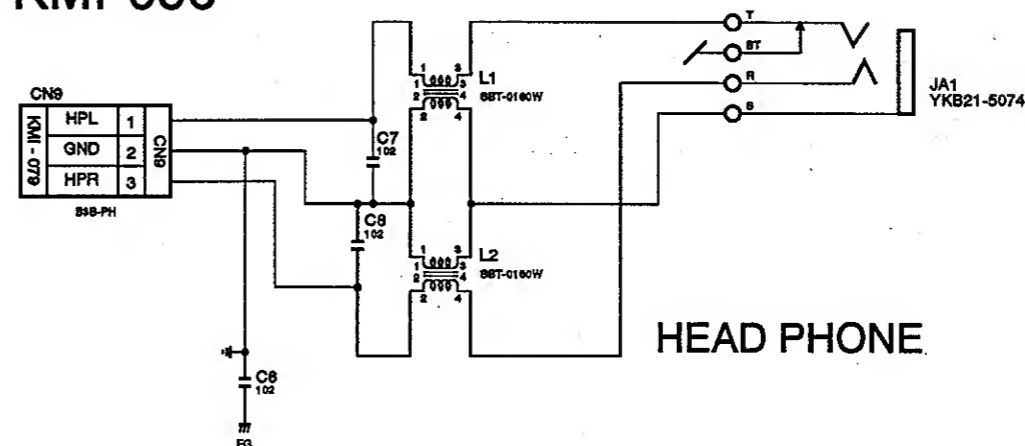
INCREMENTOR

KMI-095



VOLUME

KMI-096



HEAD PHONE

39. KMI -077~079 PRINTED WIRING BOARDS(W type)

(KMI - 077)

-17	1	CN3
AG	2	
+17	3	
M17	4	

(KMI - 077)

NC	1	CN4
DG	2	
DG	3	
+5	4	

(KMI - 077)

PCONT	1	CN5
PDOWN	2	
DG	3	
DG	4	
+5	5	
+5	6	

(KMI - 077)

DG	1	CN6
NC	2	
EL	3	

(KMI - 078)

GND	1	CN2
+5	2	
FS1	3	
FS2	4	

(KMI - 078)

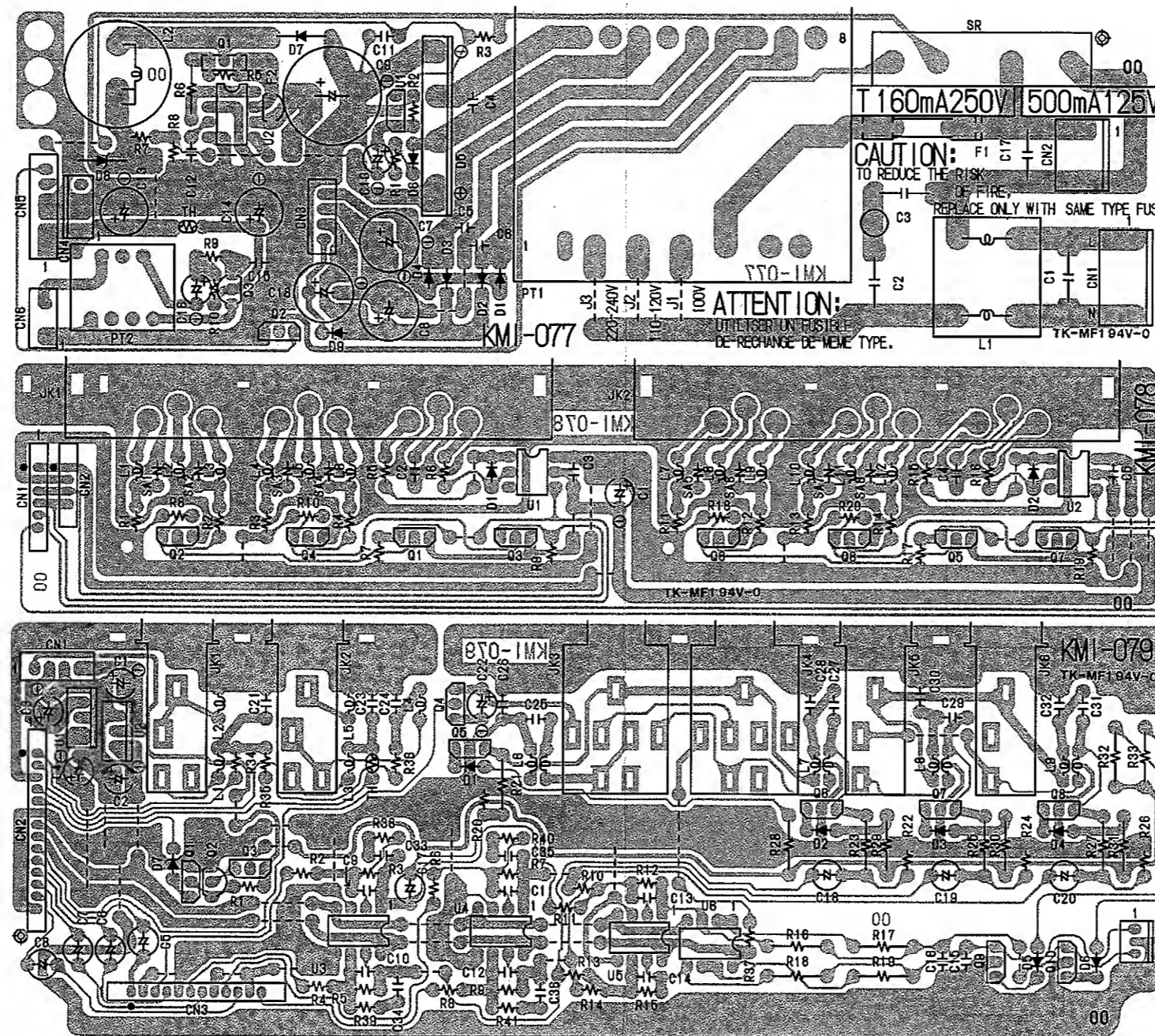
GND	1	CN1
+5	2	
OUT B	3	
IN B	4	
OUT A	5	
IN A	6	

(KMI - 079)

M17	1	CN1
+17	2	
AG	3	
-17	4	

(KMI - 079)

HOLD	1	CN8
EXP	2	
DG	3	
+5	4	
MUTE	5	
AG	6	
-12	7	
+12	8	
SEL	9	
IR	10	
IL	11	
LR	12	
LL	13	
AG	14	



(KMI - 077)

1	SWC	SW
2	NC	
3	SWH	

(KMI - 077)

1	L	INLET
2	NC	
3	NC	
4	N	

(KMI - 079)

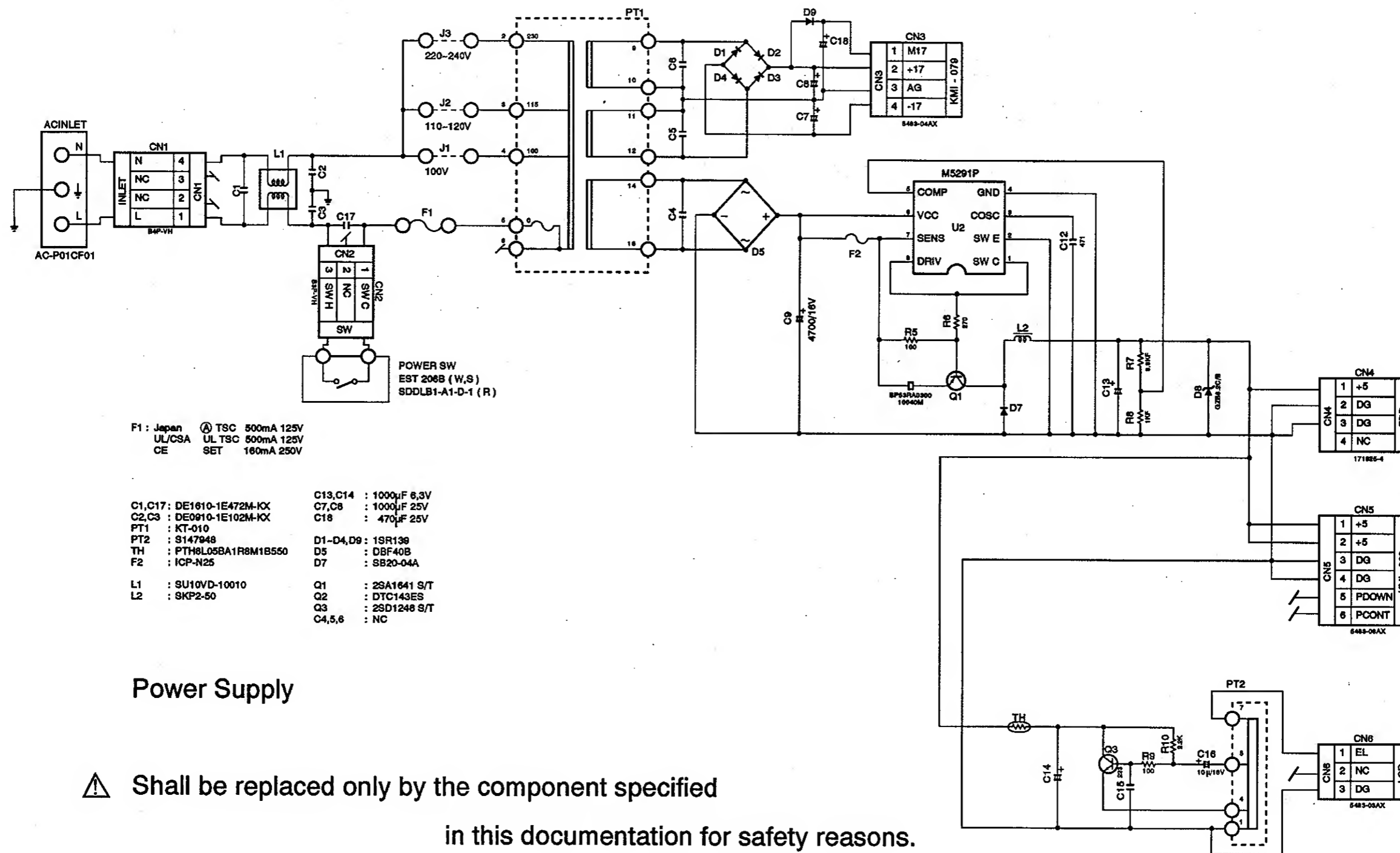
1	HPL	HEAD PHONE
2	AG	
3	HPR	

(KMI - 079)

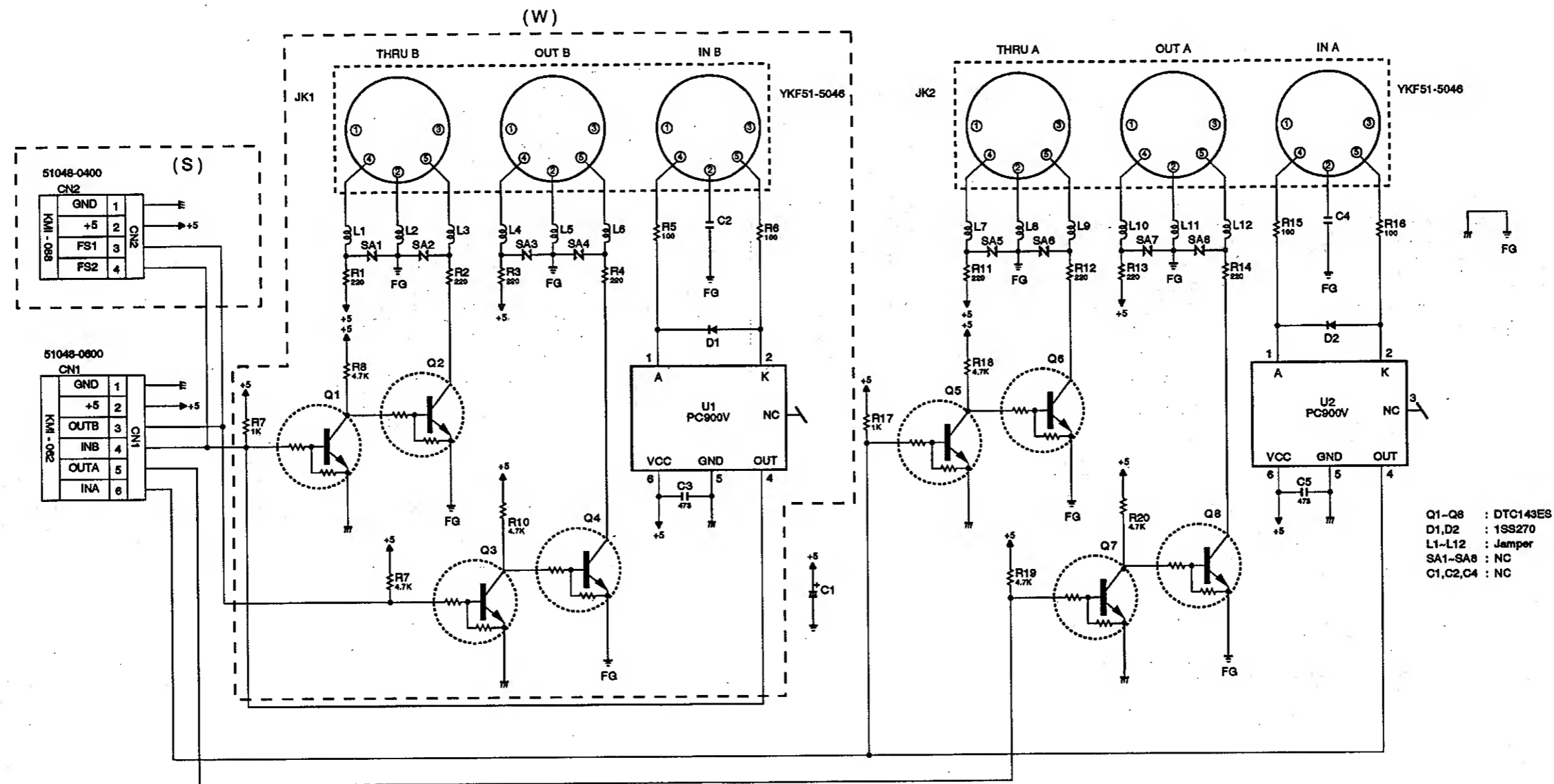
1	2	3	4	5	6	7	8	9	10	11	12
IRS	AG	IFR	ILS	LR	LRS	AG	LRR	LLS	AG	LLR	

VOLUME

40. KMI-077 CIRCUIT



41. KMI-078 CIRCUIT



MIDI

7



